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THE AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION

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Henry M. Hurd, M. D.

G. Alder Blumer, M. D.

Edward N. Brush, M. D.

J. Montgomery Mosher, M. D.

Charles K. Clarke, M. D.

VOLUME LXXIV

"The care of the human mind is the most noble branch of medicine."—GAOTIUS

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AMERICAN JOURNAL OF INSANITY

PRESIDENTIAL ADDRESS.*

RECENT TRENDS IN PSYCHIATRY.

By CHARLES G. WAGNER, M. D.,

Medical Superintendent Binghamton State Hospital, Binghamton, N. Y.

Members of the American Medico-Psychological Association, Ladies and Gentlemen: The Association is now assembled for its seventy-third annual convention; its members are gathered for a meeting under extraordinary circumstances: our country is at war with a great foreign power; our national government, after long and careful deliberation, has reluctantly entered the titanic world-wide conflict on behalf of civilization, national independence and the rights of humanity. In this critical hour, with the nation facing the greatest crisis in its history, with its very existence imperiled, a solemn obligation rests upon every loyal American citizen; an obligation to support the government of the United States with all the resources at his command, and to render faithful and efficient service wherever duty calls him.

Our country is confronted with grave problems: a vast military organization must be created; unlimited financial credit established; war munitions manufactured on an enormous scale and food supplies in huge quantities must be provided, not only for our own people, but for hungry millions beyond the seas. The food question is the most important of all these problems, and the members of this Association can aid materially in its solution by devoting their energies to the task of making every institution possessed of farm lands largely self-sustaining as regards the

* Delivered at the seventy-third annual meeting of the American Medico-Psychological Association, New York, May 29-30-31-June 1, 1917.

products of the soil and the food supplies derived therefrom. This subject will be discussed by Hon. Carl Vrooman, Assistant Secretary of Agriculture, and others whose expert knowledge qualifies them to speak of the urgent need of strenuous and intensive farm cultivation, at a special session set apart for it, and to which you are cordially invited.

Fifty-three years ago when our Civil War was at its height, at their meeting in Washington, our members tendered their services to the Surgeon-General of the United States to aid in the care of sick and wounded soldiers in the hospitals attached to the battlefields. The need of such aid, especially in the domain of psychiatry, may again become exceedingly urgent in the near future. At this meeting, therefore, at an opportune time I shall offer a resolution covering a tender of similar service, and I trust it may have your unanimous and enthusiastic approval.

For the sixth time in three-quarters of a century our meeting is held in the city of New York, where its importance is accentuated by the unprecedented demand for place on its program by members who seek opportunity to be heard in the greatest forum of the world; indeed their offerings have been so numerous that many papers which the Association would be glad to hear in full must be read by title only, as limited time will not admit of their full presentation.

To be your presiding officer at this meeting I esteem a very great privilege; to be the President of this Association, to occupy the chair so ably filled by many distinguished predecessors, is indeed the greatest honor that has ever come to me, and I should be unmindful of my nearest duty if I failed to express my obligation to you my fellow-members for the distinction you have conferred upon me, and my appreciation of your very kind consideration, but along with a profound sense of gratitude comes deep humiliation born of the feeling that any effort on my part to address you as becomes the great office I hold, must appear poor indeed when placed in deadly parallel with the scholarly productions of my predecessors whose names are a brilliant galaxy in the scientific firmament of psychiatry.

To that great array, the empire state has contributed a splendid share; the names of Nichols of Bloomingdale, Gray of Utica, Andrews of Buffalo, Chapin, Wise, Blumer, the MacDonalds,

Brush and Pilgrim, together with many of equal eminence from other states and from Canada, will always be an inspiration to those coming after them. But, notwithstanding that inspiration, it requires but a brief survey of the pages of the *AMERICAN JOURNAL OF INSANITY* in which our presidential addresses have been published, to disclose that misgiving, doubt, anxiety and despair have been in turn the controlling emotions of nearly every one who has essayed the task of preparing the president's address for an occasion like this, since that memorable day when Dr. John H. Callender of Tennessee, broke the ice at Newport, with the first attempt in 1883, and then, only, after solemn assurance from the Association that his utterance should be immune to all discussion.

Even the erudite sage of Butler, whose facile pen knows no peer, was moved to say at Washington, a decade or so ago, that "for a whole year such a thing as serenity of soul is unknown to the man who awakes to find greatness accidentally thrust upon him as president of an association like this. From that moment of initial apprehension to this one of extreme anxiety, the thought of delivering the annual address haunts him during every waking hour, and even racks his subconscious mind while he seems to sleep o' nights." Well-nigh every imaginable subject that might appear worthy of your consideration at this time has been traversed and re-traversed in days gone by until scarcely an undissected fragment remains for further discussion. I trust, therefore, I may be pardoned if I ask your kind indulgence while I offer a few brief, and I fear rather trite comments on what may be termed some of the recent trends in the domain of psychiatry.

The activities of this Association cover a period of 73 years; it is older than any other national medical organization on this continent; from the small gathering of 13 superintendents at the residence of Dr. Kirkbride in Philadelphia, in the month of October, 1844, it has grown until to-day nearly every public and private institution for the care of the insane in the United States and Canada is represented on its roster, and our membership has nearly reached the one thousand mark. Our organization to-day includes, as it has in the past, the ablest men in our profession, devoted to the study of mental and nervous diseases, and the good work that they and those who have preceded them have done to

alleviate the conditions surrounding the insane is an enduring monument to their industry, self-sacrifice and devotion to duty.

The history of insanity is voluminous. The scriptural references of the Old Testament; the early beliefs in demoniacal possession; the advent of Hippocrates and his gentle ministrations; the lapse of the world into the barbarism of the "Middle Ages" and the coincident reign of witchcraft and sorcery; the cruel tortures that terminated the lives of thousands of unfortunate sufferers, guilty of no greater crime than the loss of their reason; the coming of Pinel, Tuke, Connelly and other humanitarians and the revolution in the method of treatment that resulted from their enlightened teaching, have all been exploited before you by abler pens than mine on many occasions. The early history of the insane in this country; the great advances in psychiatry, in hospital administration and in constructive development, are all matters of record in our proceedings and transactions in such detail as to scarcely need mention at this time. This great field has been especially covered by the monumental work of the committee of which my distinguished colleague and former President of this Association, Dr. Henry M. Hurd, is chairman, in the splendid history "The Institutional Care of the Insane in the United States and Canada," which has been issued from the press within the past year.

Wide and favorable comment has been made on this great work, for which the Association may claim some credit in that it assumed sponsorship for the enterprise in 1908 at Cincinnati, by directing its President to appoint the committee charged with the duty of preparing it, and by assuming financial responsibility for its publication. The four volumes of this history, comprising more than 2500 printed pages, constitute a library for the student of psychiatry, and to Dr. Hurd and his immediate associates in this great undertaking, performed without other reward than the satisfaction derived from the consciousness of a noble task splendidly done, are due the thanks not only of our Association, but of the entire medical profession.

The cordial reception this publication has met with is an encouragement to the Association to undertake another important task, the successful accomplishment of which would be of great value to the medical profession, namely, the formulation and

adoption of a uniform classification of mental diseases, and the publication annually of a statistical report of the insane, showing the status of insanity in every state in the union. This is unquestionably a work our Association should undertake rather than some other organization having no direct connection with the care and treatment of the insane, and I bespeak, therefore, your hearty approval of the report of the committee on uniform statistical reports, advance copies of which have been placed in your hands.

The American Public Health Association through its committee on "Relation of the 1920 Census of Vital Statistics" will recommend "that a registration area for institutional medical statistics be maintained for the census year 1920 to include specific mention of mental diseases in the care of institutions." It has been suggested that the American Medico-Psychological Association appoint a committee on "Registration Area for Mental Diseases," and that this committee "recommend a system of classification, secure the support and cooperation of the hospitals, and offer to the Surgeon-General of the United States Public Health Service forms for a series of simple tables to show important data concerning patients with mental diseases admitted to and cared for by institutions during the census year 1920." It is urged that the service could then, and perhaps annually thereafter, publish comparative statistics of mental diseases in the several states and summary statistics for the entire area of registration record.

At the present moment perhaps no phase of psychological medicine is receiving more attention than mental hygiene; this term covers a wide field, including the practical care and treatment of mental diseases and mental deficiency, and the application of psychiatric and psychological knowledge to social, industrial and economic problems. As the new journal "Mental Hygiene"¹ aptly says: "To-day a general realization is coming into existence that mental factors underlie not only inability to make a living and the gross disorders of conduct, but all the social activities of man." Mental hygiene is by no means a new topic to this Associa-

¹ *Mental Hygiene*, quarterly magazine of the National Committee for Mental Hygiene, New York, January, 1917.

tion; it was ably discussed by Dr. Isaac Ray¹ at the meeting in Quebec more than half a century ago, and recently has received careful attention at our Baltimore and New Orleans meetings, and elsewhere at our annual gatherings. At Baltimore three years ago a resolution declaring it to be the duty of every community to properly care for its mental defectives, and of every state and country to enact adequate laws for the proper segregation of feeble-minded persons and the prevention of propagation of their kind, was presented by the President, Dr. Carlos F. MacDonald, and adopted by the Association. This action was unquestionably a step in the right direction, but it was only the beginning of activities on the part of this Association which should be extended and far-reaching in a field of the highest importance. The influence of this great body of specialists in mental and nervous diseases should be constantly exerted along the lines of Dr. MacDonald's resolution, and especially in the domain of childhood, where, as Dr. Meyer has clearly shown, unhygienic surroundings and faulty educational methods are responsible for a large proportion of feeble-mindedness and insanity, especially of the præcox type. From this class of unfortunates the ranks of crime, immorality, prostitution and insanity are constantly recruited. If these defectives are early recognized, as Dr. Pilgrim,² Chairman of the New York State Hospital Commission, has pointed out they can be, by the Binet-Simon and other tests, "and if their future training and education can be directed and regulated so as to bring out the best that is in them, and if they can be segregated when improvement cannot be expected, then one of the questions of greatest importance in the prevention of insanity will have been solved." "To point out 'the way that madness lies,' to show the path that leads to sanity and health, to recognize the backward child and to teach him how to make the most of his limited abilities, to discover latent criminal tendencies in the young and to suggest a method of treatment which will overcome them before they become fixed, to correct the habits of those who are 'burning life's candle

¹ Mental Hygiene, by Isaac Ray, M. D., Meeting of the Association of Medical Superintendents of American Institutions for the Insane, Quebec, 1858.

² The State's Efforts to Meet the Mentally Sick Halfway, by Chas. W. Pilgrim, M. D., State Hospital Quarterly, Albany, N. Y., February, 1917.

at both ends ' either by overwork or ' the pace that kills,' in fact to ' minister to the mind diseased ' in every possible way " should be the special mission of the worker in the mental hygiene field.

In the cultivation of this broad field of human interest perhaps no single agency is more active at the present moment than the National Committee for Mental Hygiene. This organization is making systematic surveys in many of our states for the purpose of ascertaining the conditions surrounding all classes of defectives, especially the insane and the feeble-minded, and recommending to the state authorities means for the amelioration of these conditions wherever the need for improvement is found to exist. The New York State Charities Aid Association, through its committee on mental hygiene, is actively at work making organized efforts throughout New York State to prevent mental diseases and to secure the establishment of facilities for the earlier discovery and treatment of mental disorders before they develop to serious or hopeless stages.*

In this important movement the state hospitals of New York State, Massachusetts, and some other progressive states, are taking an active part. Mental clinics as features of out-patient departments have been established in connection with many of these institutions and at others plans are well advanced and only await necessary funds for their maintenance to complete their organization. The State of New York has encouraged these clinics during the past two or three years by incorporating in the insanity law a clause, authorizing the state hospitals to organize in connection with each institution an out-patient department, of which such clinics are special features. In carrying out this behest of the statute nearly all of our hospitals employ trained nurses as special field agents whose work in the domain of prevention and after-care is of inestimable value. These agents are trained social service workers, who devote their whole time to the interests of patients who have been discharged from the hospital, or are away on parole; they visit them in their homes throughout the hospital district, confer with them and with their friends as regards their welfare, advise them as to their habits, modes of exercise,

* Annual Report of the Committee on Mental Hygiene of the State Charities Aid Association, 1916.

recreation and occupation and frequently aid them in securing employment, or assist them in the selection of more suitable living quarters if they are maintaining themselves away from home. In this way, aided by the hospital physicians, with whom they keep in constant touch, our social service workers are often able to ward off relapses in paroled or discharged patients, and not infrequently actually prevent mental break-down in other members of the patient's family. The home care service should go still further in the prevention field and include the detail of hospital nurses in homes where potential patients may be cared for, through a period of mental disturbance, by the family physician and restored to health without commitment to the hospital. I think this service should be provided without expense to the family and should be regarded as a profitable investment by the state, as it would undoubtedly lessen the number of commitments and correspondingly the burden the state must bear in caring for dependents of this class.

The new immigration law recently enacted by Congress and now in effect, although open to criticism from some economic viewpoints, will unquestionably be of great benefit to the country as a bar to the admission of mentally defective aliens. This law provides also for the deportation of such aliens if their infirmities are determined within five years after entry into the United States. Many of our institutions for the insane are now crowded with aliens of this class and the need of protection against this evil, never more urgent than at the present moment, will become more and more acute during the next few years on account of the increase in insanity that must result from the great war. The new law, therefore, with its provision for fines collectable from those who knowingly bring insane or mentally defective aliens into the United States, its provision for officers with special training in psychiatry at the large ports of entry, and the lengthening to five years of the period during which insane and other mentally defective aliens may be deported, cannot fail to be of immense practical value in keeping out of the country a class of persons wholly unfit for the duties of citizenship, unfit to become the parents of American children and who, if admitted, must necessarily become a burden upon the commonwealth and a menace to the race.

In reviewing the general field of psychiatry some of its critics—and they are not all outside the fold—have been prone to allege an absence of the progressive spirit in our institutions for the insane as compared with the general hospitals in the larger cities, and that “non-scientific” methods of studying insanity have prevailed. We are charged with being “too frequently satisfied if our patients are comfortably housed, our wards not too crowded, the routine of the day’s work not interrupted by untoward incidents, and our statistical tables up to the general average as to the percentage of recoveries and possibly a little below as to the percentage of deaths.”^a Undoubtedly there are many institutions to which such criticism is still applicable, but in our well ordered hospitals for the insane to-day, the routine and stereotyped procedures of a generation ago, long since gave place to a study of the individual case in which thorough analysis of the mental symptoms and exhaustive laboratory research applied to the physical aspects, are the foundations of diagnosis and treatment.

The history of the remarkable progress of the medical sciences in the past decade or two has been largely written in the pathological, physiological, chemical and biological laboratories and psychiatry has by no means been a laggard in this great movement. We now better understand the pathology and etiology of many of the psychoses as a result of laboratory study and are therefore better able to prevent insanity and to cure our patients in whom mental disorder has developed, than ever before. It can no longer be said that “there is no pathology of insanity.” To-day we have the large group of so-called organic psychoses, in which there are definite lesions of special organs or definite etiological factors to explain the mental symptoms, the recognition of which is the direct result of research in laboratories.

This large group includes traumatic psychoses, senile and pre-senile psychoses; psychoses with cerebral arteriosclerosis; dementia paralytica; psychoses with cerebral syphilis; psychoses with Huntington’s chorea, with brain tumor or abscess, with cerebral embolus, with tubercular meningitis, central neuritis, multiple sclerosis, tabes dorsalis, acute chorea, etc.; the alcoholic psychoses; drug and other toxic psychoses; lead intoxications, gas poisoning

^a Edward N. Brush, M. D., Presidential Address, New Orleans, 1916.

and pellagra. Then there are the infective and exhaustive deliriums; the auto-toxic psychoses, such as the thyreogenous, uremic and diabetic disorders, and many others which might be added to the list. The laboratory work on syphilis alone has been of inestimable benefit to psychiatry. The Wassermann reaction introduced in 1906, has established beyond cavil the etiological significance of syphilitic infection in the causation of dementia paralytica, and the finding of the syphilitic organism in the brain and the cerebrospinal fluid of paretics may be said to have completed the chain of evidence that "without syphilis there is no paresis." This study is still being carried on and our knowledge of the various manifestations of cerebral syphilis is steadily advancing.

These studies are of great importance from a therapeutic viewpoint. The comparatively recent introduction of salvarsan into our therapeutic armamentarium, by Ehrlich, has added a stimulus to the study of the reaction of the central nervous system to syphilis, and it can be safely said that to-day there is much more hope for successful treatment in the cerebral syphilis reactions than ever before. The Wassermann reaction has demonstrated its value as an aid to diagnosis to such an extent that it is now regarded as necessary in the complete examination of any case admitted to the hospital; without it we cannot exclude syphilis as an etiological factor in any case. In every instance where a positive Wassermann reaction is found in the blood serum lumbar paracentesis should be performed and the cerebrospinal fluid examined by the Wassermann method. The number and character of the cell content, the bacterial and the globulin content of the fluid should also be determined.

Progress is being made in our laboratories in the study of the toxic-infectious-exhaustive disorders. The various bodily functions: nutrition, digestion, nervous energy, etc., are all manifestations of chemical processes; disturbances of metabolism result from external and internal infections and toxic substances and often result in intoxications, the importance of which, in nervous and mental diseases, is commonly admitted. It is well known that bacteria or their toxins may act directly on the brain, or they may cause metabolic disorders elsewhere in the body, which produce auto-intoxications. These infections and intoxications are

now occupying many of our laboratory workers and through their activities we are every day controlling infections and toxins by vaccines and antitoxins, and the field of Ehrlich's side chain theory is constantly widening in its applications to the problems of psychiatry.

Besides these investigations in the purely scientific field, the entire scheme of hospital procedure, as it affects the patient, has undergone a radical change. Hydrotherapy and massage are recognized as exceedingly valuable therapeutic measures; industrial and diversional occupations; classes in physical culture and the systematic re-education of patients, especially of the dementia præcox type, together with greatly improved hygienic surroundings, are all factors in the general plan of treatment which to-day not only makes for the greater comfort of the patient, but largely increases his chances of recovery.

With these activities at the bedside, in the laboratory, in the class-room and elsewhere in the hospital and its environment, which make for the better understanding of the reactions that underlie mental disorders, I am in most hearty accord, but in these days "when much wild doctrine, especially as to mental therapeutics, is being offered the public,"* I cannot avoid a growing scepticism as to the value of certain new procedures that have come into prominence during the past few years, commonly referred to as the psychoanalytic movement, introduced into this country by Freud and Jung in 1909. The exponents of this movement are active in the dissemination of its propaganda. A journal devoted exclusively to its exploitation is now published; its articles are usually entertaining, but frequently clouded by what Dr. Dana calls "an extraordinary clutter of terms" many of them newly coined for this special circulation and the cases reported are often of such picturesque and dubious character, so indefinite and nebulous in their portrayal as to warrant their classification in the realm of fancy rather than fact, and to remove them from the domain of science to that of imaginative literature.

To the psychoanalyst the key to every mental state, normal or morbid, is sexuality. However pure, innocent and free from

* Jung, C. G., *Psychology of the Unconscious*, English translation, New York, 1916.

sexual coloring our ideas may appear to be this appearance is delusive, for they are in reality steeped and saturated with sexuality. This condition is not only traceable to early childhood, but the psychoanalyst is even able to invade the period of intra-uterine life and to find there the prototype of adult fears in the fright the unborn infant experienced while passing through the pelvis of its mother. Similarly the infant obeys an incestuous impulse when he kneads with his little hands his mother's breast and flings himself greedily on the nipple.

Much confusion in this new psychology seems to have resulted from dissensions "amongst the leaders themselves, so that there now exist two schools," "referred to in the literature as the Vienna school and the Zurich school";¹ of these the Vienna following seems to be the larger in this country. Freud is usually credited with the parentage of the psychoanalytic movement, notwithstanding the earlier activities of Janet and Breuer, neither of whom seems to have been sufficiently impressed by his achievements to assert a claim to priority. In dilating upon his power to "translate dreams," Freud is so confident of his ability to correctly interpret their meaning that he has only pity for the benumbed intellect that cannot follow his alert reasoning and discern with equal certainty the meaning of their symbolism.

In this connection it is interesting to note Freud's attitude toward the unbeliever; he says: "I have acquired the habit of measuring the grasp of a psychological worker by his attitude to the problem of dream interpretation, and I have noticed with satisfaction that most of the opponents of psychoanalysis avoided this field altogether, or, if they ventured into it, they behaved most awkwardly."² Nothing seems to be more conspicuous in the attitude of the master psychoanalyst than his self-satisfied complacency.

Abroad, psychoanalysis does not appear to have established a secure footing. Freud himself states that "France has so far shown herself the least receptive toward this movement," and "in England interest has developed very slowly." The standing of psychoanalysis in Germany, says Freud, "can be described in no

¹ Jung, C. G., *Psychology of the Unconscious*, New York, 1916.

² *History of the Psychoanalytic Movement*, by Prof. Sigmund Freud, Vienna. Translated by A. A. Brill, New York, 1917.

other way than to state that it is the cynosure of all scientific discussion and evokes from physicians as well as from the laity, opinions of decided rejection, which, so far, have not come to an end, but, on the contrary, are constantly renewed and strengthened." "No official seat of learning has, so far, admitted psychoanalysis." "Italy, after many promising starts, ceased to take further interest." "And Vienna," says Freud, "has done everything possible to deny her share in its origin. Nowhere else is the inimical indifference of the learned and cultured circles so clearly evident to the psychoanalyst." To Janet, "the assertion that the neuroses can be traced back to disturbances in the sexual life, could only have originated in a city like Vienna, in an atmosphere of sensuality and immorality not to be found in better cities, and it thus represents only a reflection, the theoretical projection, as it were, of these particular Viennese conditions."

Delage, of France, recently the recipient of a very high honor in England—the Darwin Medal—by the Royal Society, says of the psychoanalysts: "These men are the sincere and unhappy victims of a lamentable misapprehension; they have applied to the human individual the psychology of the inhabitants of the moon, such as some shrewd Cyrano on returning from a pretended voyage to our satellite might have imagined, in order to make it as different as possible from terrestrial realities."*

After somewhat extended reading of the psychoanalytic literature with a sincere desire to separate the wheat from the chaff, I am constrained to agree in considerable measure with Dr. Dercum, that it is a matter for profound regret "that at a time when psychiatry is beginning to unfold a practically limitless field for actual scientific research, men should be found willing to devote themselves to a cult, to an ism, which, like a salted mine, returns to the investigator only that which he himself puts in it." "How much more inspiring it would be to know that they were at work upon the biochemical problems confronting them to-day at every step, problems of auto-intoxication, of the toxicity of the sera and secretions, the doctrine of the leucomaines, the problems of metabolism in the heboid-paranoid group and in manic-depressive

* *Psychoanalysis, A New Problem*, by Dr. Yves Delage, *Journal of Mental Science*, London, January, 1917.

insanity and in epilepsy, the problems presented by the biochemistry of the blood, of the cerebrospinal fluid, the suggestive parallelism between auto-intoxication and recovery in the insane on the one hand, and Ehrlich's theory of infection and immunity on the other, and further, the whole world of serological problems now opening up, not to mention the ever widening rôle of the internal secretions."¹⁰

In conclusion, permit me to say that, notwithstanding the mild pessimism of some of our associates and a tendency on the part of others to stray from the beaten paths in search of "false gods,"

"Like one who has been led astray
In the heaven's wide, pathway,"

I regard the future of mental medicine as filled with golden promise. Serious, thoughtful students of psychiatry are busily at work on problems of vital importance, and I venture to predict that within the period of a decade or two their labors will result in a much better understanding of the etiology, pathology, diagnosis and treatment of mental diseases than we now possess. To that exalted end, even though we of the passing generation add no brilliant discoveries, yet may we each contribute our bit by faithfully doing the day's work in accordance with the light vouchsafed us. We shall then have "kept the faith"; we shall have "fought the good fight" on behalf of suffering humanity, and, perchance, when life's mellow autumn shall have arrived and we are ready to lay aside the burdens of professional life, we shall have earned the right to say, with the Grecian poet of old:

"Now I close my work, which not the ire
Of Jove, nor tooth of time, nor sword, nor fire
Shall bring to naught. Come when it will that day
Which o'er the body, not the mind, has sway,
And snatch the remnant of my life away,
My better part above the stars shall soar,
And my renown endure forevermore."

¹⁰ Dercum, F. X., M.D., Transactions American Medico-Psychological Association, Vol. 21, p. 319.

A REVIEW OF THE NATURE AND FUNCTION OF THE NEUROGLIA.

By CHARLES RICKSHER, M. D.,

Pathologist, State Psychopathic Institute, Kankakee, Ill.

• All advance in the study of the histology of the brain depends upon staining methods which will bring out the various elements and reveal the various parts of each element. In the study of the ganglion cells carmine was first used, then the silver impregnation of Golgi, and the methylene blue stain of Ehrlich, each of which advanced our knowledge but still left unanswered many questions regarding the exact structure and the changes which the cells undergo in pathological conditions. When Nissl brought out his method of staining with methylene blue, it was thought that the final step had been reached and that all the perplexing questions of histology and pathology would be solved. But in a short time this method also showed its limitations and a search for new methods was instituted.

Until quite recently, the efforts of histologists and pathologists have been directed to the study of the ganglion cell and although it was recognized that under certain conditions there were changes in the neuroglia, it was thought that these were entirely secondary and that little would result from a study of these cells.

It was known for a long time that certain fibres seen in teased specimens belonged to cells other than ganglion cells but the real form of the neuroglia cells was hardly known until Golgi perfected his silver impregnation. In 1895 Weigert brought out his method of staining the neuroglia fibres, and formulated certain functions of the neuroglia which for a time seemed satisfactory; but in a short time new investigations, notably those by Held, opened up new problems. The Weigert method while demonstrating the nucleus and fibres of the neuroglia cells gives no idea of the protoplasmic structure of the cell.

Many modifications of existing methods have been made and new methods developed in the last 10 years, all with a view of giving a clearer idea of the structure of the whole cell and its

relation to other cells and elements in the neighborhood. Alzheimer has done a great deal of work on the pathological neuroglia and Eisath has aided in showing us some of the problems involved in the study of the cell itself.

In preparations made according to Golgi's method one sees an irregular black center from which run an enormous number of expansions which may be traced for varying distances. Cajal divides the different types into three groups: (1) The fibrillar neuroglia cell with long expansions found especially in the white substance; (2) the neuroglia cell with short expansions, which Andriezen calls the protoplasmic cells, and which are found in the grey matter, and (3) the epithelial neuroglia cell.

The cell with the long expansions is the type first discovered because of the ease with which it is isolated. The body is small, 6-11 micra in diameter and irregular in shape. The filaments, to the number of 20 to 40, run in every direction. Frequently several of these filaments run from the same pedicle, their course is irregular, they branch rarely and seem to terminate in a free extremity after a course of variable length.

The filaments have neither the same length nor the same destination. Cajal divides them into three categories: (1) The slender filaments, colored yellow or light brown by the silver chromate, terminating freely a short distance from their point of origin; (2) thick, long filaments which sometimes, in well impregnated sections, may be traced for more than a millimeter. Andriezen has shown how these fibres run to more or less distant blood-vessels and envelope them in a sort of neuroglial adventitia. According to him this sort of ending serves to protect the brain tissue from the shocks caused by the variations in the blood pressure; (3) vascular appendices, discovered by Golgi, which are ordinarily thick and undivided and run almost horizontally, and end by terminating in a thick cone adherent to the endothelium of a capillary.

Ranvier, who studied principally the long fibres of the white substance, thought they had neither beginning nor end, running from one cell to another. He said that the body of the cell was not the place of origin, but only a place where several fibres coming from different directions intercrossed and traversed its granular protoplasm. This opinion was supported by Weigert, who said that it was not possible to determine the ends of the fibres, and

that also these fibres do not anastomose and that they pass from one neuroglia corpuscle to another without contracting with their protoplasm any connections other than those of contiguity. Other histologists denied this and said that the fibres were in connection with the cell protoplasm and that they had terminations which were free.

Cajal gives the following reasons supporting the latter view: The expansions of the embryonic neuroglia cells terminate freely; the vascular pedicle and the longest prolongations of the neuroglia corpuscle terminate always in an independent extremity; the expansions of the cells of the grey matter run only a short distance and always terminate in free ends. In the cerebellum the longer fibres often traverse the granular and molecular layers and their free extremity touches either the inferior surface of the pia mater, or the external surface of the endothelium of the capillaries.

The cells in the grey matter have a larger number of processes than those in white and are relatively much shorter. Each process is covered with irregular excrescences or short appendices or spines; they all terminate at the same distance from the cell body and do not stain by Weigert's neuroglial stain. According to their form, situation and their connections with the ganglion cells in the cortex, many subdivisions may be made.

Held, who has made important contributions to the study of the neuroglia, has shown that the neuroglia, besides the fibres, also produces other structures which take the character of a syncytial web. Held thinks that this reticulum includes Bethe's *Füllnetze* as well as the Golgi net which are considered by some as being identical. The protoplasmic processes of the neuroglia cells branch and these branches from various cells join to form a net-like structure which is found throughout the central nervous system. Held also describes as part of syncytial neuroglial structures the *Membrana neuroglie superficialis et perivascularis*, the former separating the cortex from the pia, and the latter the vessels from the nervous structures.

This neuroglial reticulum is best seen in the superficial layers of the cortex. Alzheimer states by no method of staining has he been able to demonstrate it in the deeper layers. The reticulum serves as a support and as Held thinks, also, as a filter for the lymph,

which nourishes the ganglion cells. At present there is no doubt as to the existence of this neuroglial reticular network and it is probable that all, or the majority of the neuroglial cells in the central nervous system contribute in some part to it.

In Golgi preparations a large number of long processes are seen extending from each cell. These cross and form a thick network of fibres which is best seen in sections from the white matter. Many of the processes are seen to end on the adventitial wall of the blood-vessels and one may conclude that some processes from every cell end in this fashion.

In sections stained by Eisath's method, or by Alzheimer's modification, one may find, especially in the grey matter, another type of cell. This consists of a nucleus surrounded by a small rim of protoplasm from which, in all directions, run protoplasmic processes. These branch and become smaller and smaller until they can be followed no further. These cells apparently do not enter into the formation of a reticulum. In good preparations one may follow the processes for a long distance, but in none are the processes as numerous as in the Golgi preparations due, in part at least, to the fact that the sections are thinner. Many of the cells have processes attached to the blood-vessels as in the silver impregnation specimens.

By the same method one may find cells consisting of a nucleus with a little granular protoplasm on one side, and on the other a comparatively large open space the whole surrounded by a line of granules. No processes can be seen to extend from these cells. Alzheimer has shown that there is a certain resemblance between these cells and the ganglion cells found in Nissl preparations in which there has been a tear in the protoplasmic body, due to the shrinking of the cell membrane by the fixing fluid. The relation of these two last groups of cells to each other and to the neuroglia reticulum as well as their biological significance is as yet unknown.

In pathological conditions, types of cells other than those described above are seen. Alzheimer, in his work on general paralysis, described cells which showed large protoplasmic cell bodies which disintegrated without having produced any fibres. On account of their form and general morphological character, he called them "amœboid glia cells." Eisath also described the same cells as occurring in large numbers in acute cases of dementia

præcox. Further investigations have shown that these cells occur in many other acute disorders of the nervous system.

All the observations have shown that the amœboid cells are short lived and in some sections one may find all stages of development. In different preparations, one may find the cells filled with granules which indicate some devolutional process.

In general paralysis, Nissl found long slender cells which stained rather darkly with methylene blue and showed only a small amount of protoplasm. To these cells he gave the name "*Stäbchenzellen*" and considered them as of gliotic origin. Cerletti, in a study of these cells, showed that many which appeared to be typical "*Stäbchenzellen*" in toluidin blue preparations proved to be adventitial or endothelial cells when stained by Mann's method or by resorcin-fuchsin. There are, however, doubtless some "*Stäbchenzellen*" which are of gliotic origin and these must be carefully distinguished from those of mesodermal origin.

Our knowledge of the function of the neuroglia cells is slight. Their position in the brain substance without processes extending to the outside excludes them from much experimental work. Consequently the comparative biological and the pathological observations have so far been the only paths open to investigation and most of the work done has been performed in this indirect fashion. There have been many theories as to the function of the neuroglia of which the following are the most important: Golgi and his pupils thought that the neuroglia acted as an intermediary between the vessels and the neurones, and served to convey nutriment from the former to the latter. According to this view the capillaries, neuroglia cells and dendrites formed a unit having for its function the nourishment of the neurone. Against this view, according to Cajal, are the following objections: (1) the protoplasmic prolongations of the neurones never terminate on the vessels or on the neuroglia fibres, as Kolliker, Weigert, Lavdowski and others have shown, (2) when the neurones seem to be enveloped by special neuroglia cells these never send any fibres to the neighboring capillaries, (3) the neuroglia cells of the white matter are lacking in fishes, batrachians, and reptiles and the epithelial corpuscles which represent them have no connection with the vessels.

Weigert thought the neuroglia played a purely passive rôle, that of filling the vacant spaces between the expansions of the neurones. In favor of this view, he argued that the neuroglia was abundant in the place where the nervous plexus occupied little space and rare where the nervous net was abundant. When there was destruction of the nerve cells by some pathological process, there was a proliferation of the neuroglia and partial obliteration of the cavity formed by the necrosis. Since the discovery of other stains which show the protoplasmic structure of the neuroglia cells and the various stages of development and decay of the cell, Weigert's views are not considered to give a definite idea of the function of the cells.

The view that the neuroglia acts as an insulator, that the fibrils are always disposed in such a way as to prevent contact between the non-myelinated nerve fibrils and between the dendrites is advanced by Cajal, Sala, and Terrazas. In favor of this theory Cajal brings the following facts:

(1) The neuroglia fibres of the grey substance in the superior vertebrates and the lateral expansions of the epithelial corpuscles in the inferior are remarkably abundant in the regions where the dendrites are most numerous. Here they prevent contact not only between dendrites of neighboring cells, but between these dendrites and the non-myelinated axis-cylinders.

(2) The neuroglia abounds in regions where the intercellular connections are numerous and complicated and it is abundant there not because contacts exist but because these contacts ought to be regulated and in some way they are led to some particular group of terminal nervous ramifications by the neuroglia.

Cajal brings forth other reasons based on comparative anatomy to support this theory and cites similar functional activity of the epithelial cells in the lower vertebrates.

Lugaro, in a paper based in part on the work of Cajal, gives the following as the functions of the neuroglia: (1) the fibres of the neuroglia support and add elasticity to the nerve tissue, (2) the protoplasm of the neuroglia cells acts as an insulating medium confining nerve stimuli to their proper line of neurones and preventing leakage of energy, (3) the protoplasm of the neuroglia cell acts as a filter for toxic products of normal metabolism and renders them innocuous. The toxic products may be in part in the blood

and in part in the nerve elements, and possibly the neuroglia cells prevent toxic agents in the blood from damaging the neurones. It is probable that nervous excitations at articulations of neighboring neurones may be of a chemical nature, and it is possible that here also the neuroglia cells may take some part in the process, perhaps by eliminating waste products, which may be formed, (4) in pathological conditions, the neuroglia cells acquire perverted activity and may become the source of toxic substances. The importance of this in many affections of the nervous system is obvious, if somewhat theoretical, (5) the neuroglia may exercise nutritive or chemical influences in the process of development, although the part played is difficult to define.

Mawas has brought forth the view that the neuroglia has also a glandular function. While studying the cells composing the ciliary retina, he demonstrated that these cells considered by most as being of the order of neuroglia are endowed with a secretory activity. After studying the ependymal neuroglia, he concluded that (1) the ependymal neuroglia cells of vertebrates presented a marked variation in the chromaticity of the nucleus, which is an important morphological manifestation of glandular activity (2) the protoplasm of the ependymal cells, neuroglia cells and their prolongations show among other details mitochondrial formations, recesses, granules, and lipoid enclosures. The mitochondrials in the ependymal cells occupy the supranuclear zone, but one can see them throughout the cell. In the neuroglia cells the mitochondrial elements are placed in the protoplasm without definite order and surround the nucleus. The granules exist in the prolongations of the neuroglia fibres where they form the majority if not all, the bodies which are called the "*Girre de Boll*." The vesicles of lipoid deposits are characterized by a highly colored cortex and clear center. Thus, according to him, the neuroglia cells present the character of actual secretory organs and form an immense gland diffused throughout the nervous system.

That the neuroglia cells may take up a phagocytic action, is now generally accepted by the majority of neuropathologists. Marinresco has indicated that a distinct antagonism exists between nerve and neuroglia cells. Nissl states that the neuronophages are of neuroglial origin and terms them "*Gitterzellen*." He further admits that leucocytes may become neurophagocytic, but are apt

themselves to finally degenerate and be devoured by the "*Gitterzellen*." Cajal, Lugaro and Marinesco emphasize the importance of the small neuroglia cells seen in the neighborhood of nerve cells in healthy, but especially in pathological, states in which latter they often proliferate and become very numerous. These cells, which normally appear to consist of a nucleus only, are exceedingly susceptible to all toxic agencies which affect nervous tissues, increasing in size and numbers in an extraordinary fashion, these they term satellite cells. Marinesco in his book, "*La Cellule Nerveuse*" proves these satellite cells to be of neuroglial origin.

Marinesco described several experiments which indicated the complex nature of neuronophagy and concluded that the main condition for its production was the death or the necrosis of the nerve cell, which, by a kind of positive chemiotaxis, attracts the phagocytes which are always motile cells and of mesodermic origin. The attack never takes place when the nerve cell is still living, so that the process might be called a neuronecrophagy. The spaces left after the absorption of the dead nerve cells are filled by cellular and fibrillary proliferation of the neuroglial tissue.

In a short review it is not possible to clearly state or abstract all the work done along this line, but it is hoped that enough has been said to give a general idea of the present day views of the nature and functions of the neuroglia.

The problems yet to be solved are many. The action of the neuroglia to endogenous and exogenous toxines, the relation of the fibres and cells to the neurones and to the nutritive processes of the brain, are far from being clearly stated. While many theories have been advanced, all are still in the stage of theory and are not at all proven. The pathological significance of the neuroglia is probably as important a subject as is that relating to the normal relation of the neuroglia to surrounding structures. Alzheimer's work has opened up vast fields for study—the determination of the origin of the amœboid cells, the processes concerned in their production and what factors stimulate their development, the nature and significance of the various granules which may be seen in them all of which are questions which will require a great deal of study and experimentation to settle.

But with the advance of histological methods and the realization of the fact that it is necessary to improve technic and methods will,

without doubt, produce the solution of many of the problems of the neuroglia and probably also many of those of psychiatry in general.

WORKS CONSULTED.

- A. Alzheimer: Histologische Studien zur differenzial Diagnose der progressiven Paralyse. Nissl's Arbeiten, Vol. I, H. I, 1904.
- A. Alzheimer: Beiträge zur Kenntnis der pathologischen Neuroglia und ihrer Beziehungen zu den Abbauvorgängen in Nervengewebe. Nissl's Arbeiten, Vol. III, H. 3, 1910.
- S. Raymon Cajal: Histologie due Systeme Nerveux de l'Homme et des Vertébrés. Vol. I, 1909, p. 230.
- Ugo Cerletti: Zur Stäbchenzellenfrage. Folic Neurologia, B. III, No. 7, 1910, p. 658.
- Geo. Eisath: Weitere Beobachtungen ueber das Menschlichen Nervenstützgewebe. Archiv f. Psychiatrie und Nervenkrankheiten, Vol. XLVIII, 1911, p. 896.
- E. Fankhauser: Zur Kenntnis der protoplasmatischen Glia. Journal für Psychologie und Neurologie. Vol. XVII, 1910, p. 19.
- Hans Held: Ueber die Neuroglia marginalis der Menschlichen Grosshirnrinde. Monatsschrift für Psychiatrie und Neurologie. Vol. XXVI, 1909, p. 360.
- E. Lugaro: Article, Allgemeine pathologische Anatomie der Neuroglia. Handbuch der pathologischen Anatomie des Nervensystems. Vol. I, 1904.
- E. Lugaro: On the functions of the Neuroglia. Arch. Ital. de Biol., T. 48, f. 3, 1908, p. 357. Abstract in Rev. of Neurol. and Psychiatry. Vol. VI, 1908, p. 587.
- J. Mawas: Note sur la Structure et les Signification Glandulaire probable du Cellules Neurogliales du Systeme Nerveux Central des Vertébrés. Compt. rendu. Soc., de Biologie, T. 69, 1910, p. 45.
- C. J. Robertson Milne: Neuronophagy, Review of Neurology and Psychiatry. Vol. VII, 1909, p. 587.
- C. Oppenheim: Ueber protoplasmatische Glia Structuren. Archiv f. Psychiatrie und Nervenkrankheiten, Vol. XLIV, 1908, p. 1217.
- S. Rosenthal: Experimentelle Studien ueber amœboide umwandlung der Neuroglia. Nissl's Arbeiten B. VI, H. I, 1913, p. 89.
- A. Van Gehuchten: Anatomie du systeme Nerveux de l'Homme, 1906.

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SOME OBSERVATIONS ON THE RELATIONSHIP
BETWEEN SYPHILIS OF THE NERVOUS
SYSTEM AND THE PSYCHOSES.*

BASED UPON AN ANALYSIS OF 11 CASES SHOWING DIVERGENCE IN
THE CLINICAL AND SEROLOGICAL PICTURES.

By LAWSON G. LOWREY, A. M., M. D.,

*Assistant in Neuropathology, Harvard Medical School; Clinical Director,
Psychopathic Department, Boston State Hospital; formerly
Pathologist, Danvers State Hospital.*

I have previously reported² a series of 58 cases in which paresis had been considered as a diagnosis; that is, from a clinical standpoint, paresis symptoms were prominent. There I pointed out a former tendency to confuse dementia præcox and general paresis, and that many cases considered to be general paresis were really dementia præcox. In the same paper the statement was made that "paresis might have been immediately excluded or confirmed" by the use of the Wassermann and spinal fluid tests. This is undoubtedly true in the great majority of cases, always with the reservation that *all* the tests be performed.

However, further experience with these tests on a wide variety of patients ill with some form of mental disease, has brought to light a small group of cases in which we find the serology of neurosyphilis, combined with a psychosis in which we have always found a negative serology or, at most, a positive blood Wassermann. Eight of the cases reported in this paper fall into such groups. Four of these would be regarded from the clinical standpoint as undoubted cases of dementia præcox. One case was regarded as an imbecile, and developed an undoubted paresis while in the hospital. Another was regarded as hysteria and constitutionally inferior at different times. Another, originally diagnosed acute mania, has developed what we have regarded as a typical Huntington's Chorea. The other is an organic case, whose status is still uncertain.

* Contribution No. 62, Danvers State Hospital Papers. Two of these cases presented before the Boston Society of Neurology and Psychiatry, December, 1916.

Three cases were originally diagnosed general paresis. Two of these have run an extremely long course, and one is now much like a late case of dementia præcox, while the other has shown a negative Wassermann in blood and fluid (other tests positive). The third case has been constantly hallucinated, and now shows little but these hallucinations.

But two reports of similar groups of cases have appeared in the literature. Southard and Solomon³ have reported a group of five cases showing the serology of general paresis or cerebrospinal syphilis. Four of these cases were not considered insane, and in none had paresis been considered before the serological examination was made. The fifth case presented a typical manic-depressive attack, with recovery, plus positive serology, and without sign of paresis on recovery, except that the serology remained positive.

Barrett¹ has reported a series of nine cases with manic-depressive symptomatology and course, and with the serology of neurosyphilis. He found the neurological symptoms mild, and that remissions were complete in a considerable proportion.

We have so far had no cases running a manic-depressive course and presenting the serology of neurosyphilis. We have had many manic-depressive cases with a positive Wassermann in the blood serum, but in all of these except one the spinal fluid was negative to all tests. The one case gave only a positive Wassermann in the fluid, the other tests being negative. This case is not reported, because we wish to report only cases in which the serological evidence is unequivocal.

The three cases originally diagnosed paresis illustrate certain points extremely well. Three of the cases reported here were reported in the paper previously mentioned, but not in detail.

THE CASES.

GROUP I.—DEMENTIA PRÆCOX.

CASE NO. 14141. C. Q. Male.

Family History.—No insanity or nervous diseases known. Family well-to-do, well educated.

Personal History.—Born in 1871. Family always considered him of low grade intelligence. Learned with difficulty at school, which he left early. Then took many positions, holding them only a short time. At 23, began the study of law, but failed to pass his examinations.

Psychosis.—At 25 he developed auditory hallucinations, hearing the voices of the "Big Twelve Club" swearing at him, threatening and taunting him. Delusions of persecution based on these voices, and also against his family, especially his sister, developed. He finally became so convinced of his family's persecution that he left home and went to an uncle in New York. Here his ideas developed further and he was committed to Bloomingdale in 1900. There he reacted well to the environment, was quiet, orderly. Attack of gonorrhœa at time of entrance. Was given parole and went into New York City from time to time. His hallucinations persisted, but the persecutory ideas directed toward his family seemed to quiet down. In 1907 he was allowed to go home.

In a very short time he was again very bitter toward his family, especially the sister. Finally he attacked the sister, and was committed to Danvers March 12, 1908, age 37.

The physical examination was negative. There was no neurological abnormalities. He has been quiet, orderly and industrious. Correctly oriented. Hallucinations and delusions persist. Works daily; is very slow, but faithful. Sleeps a great deal. Eats heavily.

Diagnosis (1908), dementia præcox on a constitutional basis.

During the summer of 1916, blood serum from all cases resident in the hospital more than four years (*i. e.*, here before the Wassermann test became a part of the routine examination of patients) was tested by Wassermann's method. In this case the test was positive. The spinal fluid showed: Wassermann reaction positive; albumin excess; globulin excess; cell count 39 (plasma present); gold 23332 10000: weak (positive).

On questioning there appears to have been ample opportunity for acquiring syphilis, but it is impossible to ascertain that an infection actually occurred.

His present mental condition is that described above. The hallucinations and delusions persist. He is pleasant, works daily, is interested in what goes on, lacks initiative. Physically he is in good shape. There is no speech defect, the pupils are regular and react fairly well to direct and consensual light. The knee jerks are present. There is a slight tremor of the fingers and facial muscles.

It is impossible to determine whether neurosyphilis existed from the first. The presumption is that it did not, yet the stationary character of the psychosis, together with the laboratory findings, indicating cerebral syphilis rather than paresis, might be conceived as arguments in favor of the interrelationship between the two. At any rate, we have now a paranoid dementia præcox clinically, plus the serology indicating neurosyphilis.

CASE No. 14826. A. W. Female.

Family History.—Very little known, and that is negative.

Personal History.—Born in Sweden, 1887. Attended school in Sweden and in America. Married in August, 1906; child born November, 1906.

Never lived with husband. At 16 an attack of depression, lasting six to seven months.

Present Illness.—Became excited and violent in an almshouse, and committed here March 17, 1909, age 22.

Physical Examination.—Well developed and well nourished. Pupils dilated; equal; react slightly to direct light; readily to accommodation. Chest and abdomen normal. Arm reflexes active and equal. Knee jerks active. Sensory fields normal. Handwriting that of a young child. Speech, coordination, vision, hearing and stereognostic sense normal.

Mental.—Quiet, seclusive, indifferent. At times laughter without cause. Stupid. No initiative. No hallucinations. Consciousness clear. Attention defect. Memory fair. Oriented. Cooperates. No ideas of persecution or reference. No negativistic symptoms.

Diagnosis.—Dementia præcox favored, rather than imbecility. Remained indolent and apathetic, untidy in appearance. At times refused to answer questions. Further notes show the following: January, 1911. Has hysterical spells. Does not talk. October; occasional outbreaks when strikes nearest person. 1914. Demented, disoriented. Violent spells. Mute; resistive. Cerebral flexibilities. Catatonia. Schnautzkrampf. Defective vision. Finally, 1915, became totally blind.

With the exception of the blindness, this case reads as a typical dementia præcox.

However, in 1916, we found: Blood Wassermann reaction, positive; fluid Wassermann reaction, positive; albumen excess, globulin excess, cells 250; gold 25555 54310—that is, a very typical serology for paresis.

Present Condition.—She is resistive, will not answer questions. She is blind, and there seems to be no pupillary light reaction. Knee jerks not obtained. Because of her resistiveness a further statement cannot be made.

It will be noted that at the time of her admission, nearly eight years ago, there was a pupillary abnormality. Abnormal pupils in some sense are often found in præcox, as I have shown elsewhere.³ However, with the later history of the case, the blindness, loss of knee jerks and the serological findings, one is tempted to believe that the neurosyphilis was present from the first.

On the other hand, it is difficult to explain the catatonic symptoms on the basis of neurosyphilis. Certainly catatonic symptoms are extremely rare in cases of true paresis. The question then remains open whether this woman was a neurosyphilitic from the first, or whether we have to deal with tabes (?) superposed on dementia præcox.

Because of the uncertainties about the relationship between the neurosyphilis and the psychosis in these two cases the following cases become important, since here neurosyphilis was unexpectedly discovered early in the disease.

CASE NO. 17612. A. W. Male, born 1881.

Family History.—Negative as far as known. Father hard drinker.

Personal History.—A pressman. Gonorrhœa in 1904. Moderate drinker.

Present Illness.—In November, 1911, patient developed hallucinations of smell and hearing, and delusions that he was being poisoned. Taken to the Psychopathic Hospital, the physical and neurological examinations were normal. The memory was good, he was oriented, quiet, showed no insight. From there he was sent to Danvers where he remained until February, 1912. Here he was quiet, and showed nothing not mentioned above. He was discharged "improved."

He then returned to work, but was irritable, and seemed suspicious of his fellow workmen. Developed ideas of persecution against the union. Became restless, walking the streets. Would not eat for fear of poison. He was taken to the Psychopathic Hospital in October, 1913, and from there committed here. Diagnosis "unclassified."

Here he was at first restless. Suspicious. Reticent. Well oriented. Auditory hallucinations; expressed no delusions. Pupils normal. Knee jerks active. Wassermann reaction on blood serum positive; fluid positive. Globulin excess; cells 90.

Diagnosis.—Unclassified. General paresis considered.

Since then he has been oriented, inactive, deluded, gustatory hallucinations, seclusive. At times excited and assaultive.

Physical examination at present gives no suggestion of paresis. His general reactions are those of dementia præcox. Wassermann, blood serum, positive; spinal fluid, positive; albumin excess; globulin excess; cells 126; gold 34444 32000.

In this case, therefore, the neurosyphilis became evident by serological tests in 1913, within two years of the onset of the psychosis. The psychotic picture is definitely that of dementia præcox, and has been from the first, while the serological picture is with equal definiteness that of paresis.

CASE No. 18499. E. S. Male.

Personal and family history unimportant, except for gonorrhœa and chancre (?) at 22. In July, 1914, age 26, his trouble began. He thought people were bothering him and that he was watched and followed by the police. Thought people were hypnotizing him. Became suspicious and fearful; was afraid to sleep. Heard noises at night. People were reading his thoughts; could even read his thoughts over the telephone. The men he worked with were plotting against him. The hypnotism began at his feet and worked upward, focusing on his forehead as a light which he could see. Influences became more powerful. Heard people calling him bad names. Changed rooming house to get away from annoyance. Also quit work and remained in his room for the same reason.

Committed March 11, 1915, age 27. Dull, worried, quiet, industrious. Reticent, tidy, oriented, no memory defect. Auditory and visual hallucinations. Somatopsychic ideas and ideas of reference. Ideas of hypnosis. No insight.

The physical and neurological examinations were completely negative.

Clinically, the case seems undoubtedly dementia præcox. Serologically: Wassermann reaction blood serum, doubtful and positive; fluid, twice positive and once doubtful; albumin normal; globulin positive in one of four tests; cells 72, 57 and 55 in different specimens; gold

1. 01121 00000

4. 12333 10000

2. 22211 00000

5. 23211 00000

3. 13343 10000

6. 23333 20000

Here is evidence of a low-grade, syphilitic infection of the central nervous system, plus a very characteristic clinical picture of dementia præcox, the two discovered at about the same time.

His condition has remained unchanged. Intra-dural injections of mercurialized serum were given, with some improvement in the laboratory findings. Because of the great distress the injections caused the patient, and because of a pronounced loss in weight, the treatment was abandoned.

He has since been transferred to another institution.

In this case one may speculate upon the probable causal relationship between the neurosyphilis and the psychosis. The final test would be to clear up the syphilis by treatment. If the psychosis also cleared up, the relationship would be obvious. Our attempt failed.

GROUP II.—CONSTITUTIONAL INFERIORITY AND IMBECILITY.

These two cases are similar in that the neurosyphilis apparently developed while they were under observation. Both were autopsied.

CASE No. 14556. M. D. Female. Autopsy No. 1912.

Family History.—Negative.

Personal History.—Well educated, learning without difficulty. Then worked as stenographer, changed positions frequently, and finally became a scrubwoman.

For 15 years she led a life indicative of lack of judgment and of a loose moral tone. Committed theft, was declared irresponsible and committed to Danvers September 22, 1908, age 36. Here she showed a marked lack of judgment, superficiality, absent moral sense. There were possible hallucinations, auditory and visual. No delusions. No insight. Thoughtless.

There was a trace of albumin in the urine. Tremor of the tongue, and some difficulty in localizing tactile stimuli, otherwise the physical examination was negative.

Diagnosis.—Probably an imbecile, with possible developing dementia præcox.

She worked well, was euphoric. Diphtheria in 1910. In 1910 she refused to work because her feet hurt.

December, 1910, serum Wassermann reaction positive.

1911. Periods when she becomes stupid. Echolalia at times. Oriented. Pupillary light reaction sluggish. Left knee jerk greater than right.

1912. Failing. Incoherent. Pupils irregular, but react. Speech defect. Tremor of hands and tongue.

1913. Cared for in bed. Gait unsteady. Euphoric. Marked speech defect. Incoherent.

1914. Dementia increased. Euphoric. Incoherent. Bedridden.

1915. Serum Wassermann reaction positive; fluid Wassermann reaction positive; albumin excess; globulin excess; cells 14; gold 35344 42100.

1916. Seizures. Died May 10, 1916.

Autopsy.—Cause of death, lobar pneumonia.

Head.—Calvarium thick, dense. Dura thickened. Pia everywhere over vertex thickened. Granular ependymitis of ventricle. Induration of cortex of frontal lobes. Brain weight 1050 gm. External hydrocephalus.

Microscopical Examination.—Typical picture of paresis.

This case might, perhaps, be regarded as one of paresis of unusually long duration. However, the negative physical examination in 1908, with the gradual later development of physical signs, is against this viewpoint. At the same time the euphoria, lack of judgment and insight, may very well have been prodromal mental symptoms of paresis, the patient having gotten into difficulties before the onset of physical symptoms.

At any rate, there is no question of the development of fully blown paresis while in the institution. Probably the laboratory tests would have been positive earlier had they been done.

The second case in this group is in many ways remarkable.

CASE NO. 17878. P. G. Female. Autopsy No. 1867.

Family History.—Maternal grandmother insane. Father "nervous" and excessively alcoholic.

Personal History.—Born 1890. Bright as a child. Always willful. At 14 left school to work. In four years worked in several places. At 18 married a worthless fellow, to give their child a name. At 20 a miscarriage.

In 1908 an operation for appendicitis. In 1908-9 three operations for rectal fistula. She had had many "rectal abscesses" throughout her life.

Present Illness.—Seems to date back to 1906, when she was frightened by her father, then on a spree. She became so nervous it was thought she had St. Vitus dance. Following that she had many "fainting spells" and spells when she became rigid. At times she was mute and showed convulsive movements, called by her physician hysteria. For about a week was drinking, saying later that friends of her husband held her and poured it down. Made a spectacular attempt to commit suicide, later telling about it in great detail, and was committed here September 1, 1910. Age 20.

Here she was noisy, impulsive, violent at times, exaggerated greatly to gain attention and sympathy. She had "fainting" spells, exhibiting choreiform movements and general convulsions.

Made one attempt at suicide which would have succeeded had she been in earnest. Was very violent if crossed.

October 6, 1910. Gynecological examination shows sharply defined reddened ulcer with clean cut base on right labium majora. A history was then obtained of probable onset of syphilis in 1908. Vigorous treatment instituted. Many ulcers in throat and on tongue. January, 1911. Salivation. Treatment omitted and in a week several mucous patches appeared. Treatment started again. July, 1911. Wassermann reaction serum strongly positive.

Became quiet, helpful. Signs of syphilis disappeared. Allowed to go November, 1911. Recovered.

Diagnosis.—Hysterical insanity.

In 1912 it was reported that she had three hysterical spells of short duration. During this year she left home for periods of two to three days to two weeks, returning exhausted and unable or unwilling to give an account of her wanderings. From October, 1912, to March, 1913, she was continually away from home. In September, 1913, she began to go away again. Her people could not control her. It was thought she was drinking and going with men.

From October to December, 1913, she worked. In December the right ovary and both tubes were removed.

In January 24, 1914, she was found in an extremely excited condition in a Boston hotel. Five people were required to restrain her. She said she had been with a man. Arrested for drunkenness. Taken home, she wandered away for three days and returned exhausted.

February 1, 1914, returned to hospital. Complained of headaches over right eye. Convulsions at times. Some evidence of past syphilis. Otherwise physical examination negative. She was oriented, talkative, memory good. There was a judgment defect. No delusions or hallucinations. Unstable will. Did many things to attract attention. A diagnosis of constitutional inferiority was made and she was allowed to go home.

During March she was twice arrested for larceny and drunkenness. On March 27, she attempted suicide by hanging out of a window in Lynn. She tied the fire-escape rope about her neck and body and lowered herself out of the window, supporting her weight chiefly by her hands and body. Rescued by the police, she was returned to the hospital March 28.

For a time she was very noisy and disturbing, then quieted down. Many complaints for attention and sympathy. In November, 1915, she wanted to go home, but the staff refused. November 30 she made a final attempt at suicide, hanging herself with a pillowslip to a bar. She had been very troublesome.

Serology February, 1915. Serum Wassermann reaction positive; fluid Wassermann reaction positive. Albumin excess; globulin excess; cells 122, plasma cells frequent; gold 13331 10000.

Autopsy.—Persistent thymus, weighing 24 gm. Aorta very small. Dura mater and pia-arachnoid thin. No granulations. No evident abnormalities. Organs all much congested, with some edema, especially the lungs.

Microscopical: Collections of plasma cells in adrenal medulla. Thymus typical. Heavy perivascular exudate in Gasserian ganglion. Cord: No Weigert or Marchi degenerations. There is a considerable cellular exudate in the meninges, all mononuclear. There is a marked infiltration of the vascular sheaths, especially the media, with mononuclear cells. In the cortex, a fair number of vessels show perivascular infiltration with mononuclear cells. The meninges show occasional collections of the same cells.

Here, then, is a microscopic picture of paresis, with normal-looking gross brain, in a person who never showed the clinical picture of paresis, and who had secondary syphilitic manifestations five years before death.

ORGANIC BRAIN DISEASE.

For convenience, I have included under this heading the following case now showing the picture of an organic brain disease, although the original diagnosis was acute mania.

CASE No. 8307. K. B. Female.

Admitted June 30, 1896, age 28. For about 10 days she had been excited, frightened; talkative; spoke of being "bitten by serpents." Would let no one approach her, for fear they were devils. When admitted, she was hallucinated, hearing a child cry and seeing a woman carrying it away. Saw serpents, which bit her. Fingers and tongue tremulous, otherwise physical examination given as negative. History of chorea at 14.

1897. Spells of violence. Talks to self. Periods of disturbance and confusion due to vivid visual hallucination.

1898. Further attacks.

1899. Quiet; working.

1900. Twitching in left arm. Grimacing. Gait irregular and swaying. Speech slow and indistinct. Dementia.

1901. Jerking movements have become worse. Pupils unequal. No direct or consensual reaction to light. Knee jerks exaggerated, left greater than right.

1905. Disoriented. Slight spurious clonus. Pupils grayish. Vision unimpaired. No reaction to light.

1906. Temperature elevated. Loud systolic murmur heart. Rhythm irregular. A2 accentuated. Albuminuria. Loss of weight.

1907-12. General condition good.

1913. Dysentery.

1914. Partially oriented. Hears water "running in ears." Heart negative. Pupils react. Knee jerks exaggerated.

1915. Deluded.

1916. Is a typical case of Huntington's Chorea. The gait is extremely unsteady. Knee jerks exaggerated. There are constant, involuntary coarse

movements of the hands, head, facial muscles and tongue. There is considerable dementia. The pupils react.

Wassermann reaction serum positive; fluid positive. Albumin excess; globulin excess; cells 3; gold 44445 55321.

So far as I know, this is the first case clinically Huntington's Chorea which has been shown to have the serology of neurosyphilis. None of the cases in the hospital, some half dozen, have shown this. It would, of course, be absurd to argue a causal relationship between syphilis and Huntington's Chorea on this one case. However, it is a fair question whether there may not be a relationship in this particular case. It is conceivable that a syphilitic lesion in the right focus might cause the disease. On the other hand, it may be there are two separate processes going on.

The other case in this group was originally diagnosed organic brain disease.

CASE NO. 16454. G. G. Male.

Personal History.—He was a plumber, of pronounced alcoholic habits from the age of 30. At 37, a soft chancre. Within a year (in 1908) he had a "slight shock." He walked home, and the next day there was a right hemiplegia and speech defect. From this he gradually improved.

In September, 1911, age 40, he became restless. Periods of irritability and of weeping. He became excited and noisy, and was committed here November 2, 1911.

He was emotionally unstable; had periods of irritability; thought he was unjustly detained. Memory good; oriented. No insight. Physically, the second aortic was accentuated; albumin and granular casts in the urine. Gait "spastic," legs weak; unsteady in Romberg's position. Vision impaired. Pupils irregular, reacted sluggishly to light and distance. Knee jerk absent on right, diminished on left. Wassermann reaction serum, negative.

Since then he has had spells when he is noisy, impulsive, at times crying. For several years, cared for in a chair. For the most part he is quiet and good natured. Reads, plays checkers, etc. He does not walk.

The speech is somewhat thick, but not like that of paresis. The pupils are equal and react slightly to light. The knee jerks are absent, but there is no atrophy or hypotonia of the legs. He is oriented, the memory is good. There are no delusions or hallucinations. No residuals of shock.

Wassermann reaction blood serum positive; spinal fluid positive. Albumin excess; globulin excess; cells 36; gold

01233+ 3+2200

44333 11000 on different samples

This case seems to me one of "cerebrospinal" syphilis, rather than paresis. Apparently the chief trouble is spinal. Cases of this type are not so rare as some others here reported, but the tendency to throw all such cases into the group of paresis on the basis of the serology makes it worth while to include it, because of our findings in other groups.

GENERAL PARESIS.

These three cases are included as types only. Thus there are one or two cases in the hospital with probable longer durations than cases 1 or 2, but case 2 has been studied by me from time to time, and presents a decidedly unusual serology. The other two cases present hallucinations, which is, of course, against the diagnosis of paresis. Finally, case 1 presents an unusual condition in our experience, namely, a possible bone syphilis plus neurosyphilis.

CASE No. 13526. F. A. Female.

Family history and early life uneventful. At 18 she began an immoral life. Previous to this, an operation for osteomyelitis (date unknown). Present illness began with a fainting attack, followed by "hysterical" episodes. Became forgetful. In two months was committed here, February 23, 1907, age 26. She showed diminished pain sense; tremors of hands and tongue; exaggerated reflexes; pupils sluggish to light; and speech defect. She was well oriented, showed memory defect, was euphoric. There were no delusions or hallucinations.

In 1908 she had an attack of erysipelas, followed by mental and physical improvement.

1910. Demented, disoriented, untidy. Violent at times. Irrelevant conversation. The subsequent notes are much the same until August, 1915, when she was said to have had hallucinations.

1916. Stands for a long time in one position, or sits crouched in a chair, muttering to herself. She is resistive, irritable; occasional outbreak. There is verbigeration. Cyanosis of hands. No relevant responses to questions. Pupils probably react to light. Knee jerks active. Wassermann reaction serum positive; spinal fluid positive; albumin excess; globulin excess; gold 55555 55431. In 1914 the Wassermann reaction fluid was negative; gold 33344 33200; the other reactions as at present. There is a marked right tibial osteo-periostitis, with ankylosis of the ankle joint.

The general picture for the past three years has been much like dementia præcox, but the serological findings have been stronger. Here, then, we have a case diagnosed as paresis on clinical grounds

alone, in which, later, the serology is positive, but showing clinically, in the late stages, a picture of dementia præcox rather than paresis.

CASE No. 16456. H. I. Male. Born 1871.

The patient had a meager education: of a changeable disposition. He was excessively alcoholic, syphilis denied. In 1906 began to have trouble in walking, his feet dragging. In 1910 incontinence and loss of sexual power developed.

For about six weeks he was boastful, elated, talkative and restless, and because of this was committed November 3, 1911.

Here he was restless, euphoric, showed fair judgment and memory. Realized physical but not mental condition. The pupils were irregular, but reacted. There was a spastic gait, ankle clonus and Babinski sign. There was speech and handwriting defect.

He gradually demented, became disoriented. Is always euphoric. Gives very few relevant answers. Is cared for in bed. The pupils are irregular, unequal, but react slightly to light. The neurological condition remains the same. Wassermann reaction serum negative; fluid negative; albumin excess; globulin excess; cells 26; gold 55555 55432.

The Wassermann tests were repeated several times, always with negative results. Under treatment with mercurialized serum, the Wassermann reaction blood and fluid became weakly positive, the other tests remaining positive.

As seen on the ward, the patient seems an advanced paretic. The duration is now very long. The negative Wassermann reaction is also of interest.

CASE No. 17355. J. T. Male. Born 1880.

Family History.—Negative.

Personal History.—Patient was bright as a youth. No history of illnesses. Heavy drinker for 10 years. Married at 32. One child. For seven days he drank heavily. For four days he was expansive, became confused and excited and was committed here May 17, 1917, age 33.

Here he was disoriented and confused. Auditory hallucinations were very prominent. Amnesia for a short period before admission. There was a handwriting defect and marked speech defect. The pupils were unequal, reacted to light but did not hold. Knee jerks exaggerated. Swayed in Romberg's position. Euphoric and emotional.

Following an attack of erysipelas he improved markedly.

Later the consciousness was clear. He was constantly hallucinated, voices swearing at him and calling him names. He showed insight. Never believed the voices were imaginary. Test phrases poorly repeated.

In October, 1915, a seizure. Since then in good condition. 1915: Wassermann reaction blood serum positive; spinal fluid positive; albumin excess; globulin excess; cells 84-90; gold 55555 53100.

Finally, in 1916, allowed to go home, where he is working daily. He is still hallucinated, but says the voices do not bother him.

In this case there are several points. This may be a remission—if so, it has lasted nearly three years during which time the man has been constantly hallucinated. Certainly there were ample reasons for making the diagnosis, originally. The serology is typical—the atypical feature is the persistence of auditory hallucinations.

DISCUSSION.

Certain of these cases may be dismissed with a few words. Case No. 14556, developing paresis while in the institution, has been sufficiently discussed above. Case No. 17878 might be discussed with more profit if we knew the spinal fluid findings at the time of her first commitment. Certainly the symptoms of the case did not differ before and after the examination of the spinal fluid, *i. e.*, after the discovery of the neurosyphilis. Obviously, therefore, either (a) an hysteria-like case may have neurosyphilis develop without altering the character of the psychosis or conduct-disorder, or (b) neurosyphilis may give rise to hysteria-like symptoms and conduct-disorder (in this case the presumption is that the former occurred). In either case, we must realize that a paresis-like serology need not necessarily occur only in the clinical disease entity paresis, and that a clinical picture not paresis does not necessarily mean that there will be a negative (non-paretic) serology.

In the organic group, especially No. 8307, we are confronted with much the same problem. Here the discovery of the serology comes very much later in a long history of disease. To say the least, a condition clinically Huntington's Chorea coexists with the serology of paresis. There are no obvious evidences of clinical paresis. It is unsafe to postulate either coexistence of paresis and Huntington's Chorea or chorea due to neurosyphilis. We feel sure that one or the other is true, but our data are incomplete.

We might well doubt the presence of syphilis in Case 16456, had we not been able to get a weakly positive Wassermann after treatment. Even in the absence of the positive Wassermann reaction we should still be safe, I believe, in speaking of the case as one of neurosyphilis. This is said with the full knowledge that a negative Wassermann in *both fluid and blood* occurs in not more than 0.5 per cent of paretics. The clinical and other serological evidence in this case is almost indisputable.

Case No. 17355 is truly remarkable. As it stands to-day, the man is well except for his persistent hallucinations. This is the only case known to me in which an unequivocal diagnosis of paresis was made, which has resulted in a picture of this sort.

Case 13526 is chiefly remarkable for the change in clinical character of the psychosis. From a condition in which paresis was unhesitatingly diagnosed, she has gradually changed to her present condition, which I think anyone might regard as late præcox rather than paresis. She has been observed by me for over two years, during which time her reactions have been entirely different from those of a paretic.

These two cases both have a point in common—namely, improvement following an attack of erysipelas. The present status is, however much different.

Finally, we have the dementia præcox group. Two of the cases are of long standing and the neurosyphilis would never have been demonstrated but for our desire to have a Wassermann test on every patient in the hospital. The other two were discovered in the ordinary routine of examination.

In the first two, it is, of course, possible that the neurosyphilis is not yet at a very advanced stage, and is simply superimposed on an old dementia præcox. This is especially true in the blind case with absent knee jerks. One can much more easily conceive a cord syphilis (tabes) superimposed on dementia præcox without altering the symptoms, than he can conceive a brain syphilis similarly related. We have no evidence regarding the length of existence of the two processes, if there be two, in these cases.

In the other cases, we have a dementia-præcox-like psychosis, to say the least, plus a neurosyphilis, both revealed early in the course of the disease.

Accordingly we wonder whether (a) the two merely coexist or (b) the neurosyphilis stands in a causal relationship. If the former, then may we expect later the appearance of symptoms such as are commonly found in neurosyphilis? Returning to the case with probable tabes, the answer would be yes. Yet one of these cases has been running six years and the other two, without showing any such signs.

If (b) above is the answer, then it seems to follow that there are certain cases in which neurosyphilis does not produce a psychosis

characteristic of itself, but a psychosis characteristic of the patient's hereditary or other instability. We have here some negative evidence in that many cases of præcox have syphilis and positive Wassermann tests in the blood, without alterations in the spinal fluid, that is, without neurosyphilis.

The relationship between the neurosyphilis and psychoses in these cases is extremely tangled. It is evident that *serological (but not clinical) neurosyphilis* may be present in cases showing the symptomatology of any psychosis. All problems cannot be regarded as settled yet, hence we should be very cautious about making diagnoses of paresis, cerebrospinal syphilis, etc., *simply on the basis of serology*. The most that one can say is that "neurosyphilis" is present. *Diagnoses should be based on all data, not on part*. Contrariwise, as has been demonstrated on many occasions, it is unsafe to make a diagnosis based on clinical observation alone. At least a blood Wassermann should be done, and it would be better if lumbar punctures were done in all cases.

Finally, I may state that these cases are drawn from a total of over 2500 in which blood tests and in part of which (about 600) spinal fluid tests have been performed.

SUMMARY.

1. Of about 2500 cases examined in the last three years, 11 are sufficiently unusual to be reported on.

2. Of these, four had clinical pictures of dementia præcox; one of constitutional inferiority, and one imbecility; two organic and three paresis.

3. In two cases of dementia præcox, the serology of neurosyphilis was found early. In the other two, only after many years. In all four it was not expected. One case has tabetic symptoms, the others no symptoms of neurosyphilis. The case with tabetic symptoms also exhibits catatonic symptoms.

4. These are the only cases of dementia præcox in the hospital showing such serology, though other cases have positive blood tests.

5. One "hysterical" or "constitutionally inferior" person developed secondary syphilis five years before death. A year before death, the serology of neurosyphilis was demonstrated. Autopsy confirmed this. No clinical symptoms.

6. An "imbecile" developed genuine paresis in the hospital. Autopsy and serology typical.

7. An "organic" case without signs of paresis gives the serology of it.

8. A case, clinically Huntington's Chorea, gives the serology of paresis, without clinical signs of it.

9. One case, clinically paresis at first, seems now like dementia præcox. Serology positive.

10. One case, clinically paresis, has run an extremely long, stationary course. Wassermann negative in blood and fluid; other tests positive.

11. One case, clinically and serologically paresis, has as his most prominent symptom, and the only one at the present time, auditory hallucinations.

12. We have to do with (a) neurosyphilis in unusual causal relationships, or (b) coincident psychoses and symptomless neurosyphilis.

13. Diagnoses should be based on both clinical and laboratory findings. The neglect of either may lead to improper results.

REFERENCES CITED.

1. Barrett, A. M.: Syphilitic Psychoses Associated with Manic-Depressive Symptoms and Course. (J.A.M.A., LXVIII, December, 1916, p. 1639.)
2. Lowrey, L. G.: A Study of Some Cases Diagnosed as Paresis in Pre-Wassermann Days. (Jour. Nervous and Mental Diseases, XLIII, 1916, p. 324.)
3. Southard, E. E., and Solomon, H. C.: Latent Neurosyphilis and the Question of General Paresis sine Paresi. (Boston Medical and Surgical Journal, CLXXIV, January, 1916, p. 8.)

THE DIAGNOSTIC VALUE OF SPINAL FLUID AND WASSERMANN TESTS IN PSYCHIATRY.*

ILLUSTRATED BY EXAMINATIONS OF 500 ADMISSIONS TO
ELGIN STATE HOSPITAL.

By EGBERT W. FELL, M. D.,
Physician, Elgin State Hospital, Illinois.

The use of spinal fluid and Wassermann tests in psychiatry has to do almost entirely with the diagnosis of paresis. In this diagnosis there should be considered, beside (I) the establishment of the existence of the disease, (II) the extent of the paretic process, (III) the existence and relative importance of tertiary lesions, (IV) the possible combination with other psychoses, and (V) the diagnosis of a cure.

Accepting Head and Fearnside's¹ adaptation of the allergic concept of von Pirquet to the development of tertiary and parasyphilitic lesions, it would seem that the sensitization of the tissues probably takes place in the primary and secondary stages when the mild encephalitis occurs. Nonne² quotes Fraenkel as saying that five in fifteen cases of primary and secondary syphilis showing no nervous symptoms whatever, gave positive spinal fluid findings, including a positive fluid Wassermann. He further quotes Revaut, Levaditi and others as saying that positive fluid findings occur in early secondary cases with nervous symptoms. Wile³ concludes that a large percentage of primary and secondary syphilitics have involvement of the cerebrospinal axis with fluid changes, often a positive Wassermann. Whether it is these especially who later in life become paretics is unknown. It is said that whether or no a syphilitic develops paresis depends first, on the particular strain with which he is infected, or a change in virulence which the spirochete undergoes in the tissues, or second, on the resistance of the infected individual. The relative importance of these two factors is undetermined, but in any case there is a latent period of a number of years during which the patient may develop any non-syphilitic psychosis, his infection

* Read before the Illinois State Hospitals Medical Association, January 25, 1917.

having no etiological relation to his mental attack. Our serum Wassermann work at Elgin showed such incidental syphilis in 5 per cent of admissions.

Sooner or later a certain percentage of syphilitics develop mental symptoms and neurological signs of the particular type recognized as paresis. These may vary quite widely, depending probably on the mental makeup of the individual, the location and degree of cortex involvement and the extent of concomitant tertiary lesions. The blood and spinal fluid give reactions which are regarded as more or less characteristic. As to how long the noticeable mental symptoms may be preceded by neurologic and spinal fluid changes is uncertain. Cotton* says that neurasthenic and neurologic symptoms occur in a large number of cases for from three to seven years before commitment and correspond to the invasion of the meninges by the spirochete. If that is the case it seems probable that the neurologic process is continuous from the time of the cerebral symptoms in the secondary stage.

If the lesion is of the central type of Head and Fearnside's recovery does not take place, for the tissue destroyed is not regenerated and the location of the lesion is such that it is not reached by mercury and arsenic. The spirochete may, with or without treatment, become inactive and a remission occur, but the final outcome is always the same, and on histological examination of the cortex a quite characteristic picture is found, which, however, varies greatly in individual cases, the essential features being* extensive nerve cell destruction and disarrangement of the layers of the cortex, associated with perivascular infiltration in which the plasma cell plays a prominent part. Tertiary lesions occur in a considerable proportion of cases, the only difference in the two processes being the kind of tissue attacked; in paresis and other parasyphilitic lesions, non-regenerating nerve cells and fibers; in tertiary lesions, blood vessels and connective tissue which are capable of proliferative repair.

At Elgin, as in other state hospitals, one of the first considerations is to determine whether a patient admitted is suffering from paresis. The usual mental and physical examinations are made and a serum Wassermann is done. If for any reason paresis is suspected the spinal fluid is examined. In the past year and a half 40 per cent of male and 12 per cent of female admissions have had lumbar punctures, these making up the 500 admissions

under consideration. Each of these 500 admissions (cases of more or less recent onset) had a serum and fluid Wassermann, cell count and tests for globulin increase. The gold chloride test was not used. This 500 may be divided clinically into the luetic group (paresis, tabo-paresis and cerebrospinal syphilis) 215 cases, and non-luetic psychoses 285 cases.

TECHNIQUE.

Cell Counts.—The fluid was not usually diluted nor stained, no difficulty being experienced in distinguishing white from red cells in the unstained specimen. If red cells were fairly numerous the fluid was diluted 1 to 100 with glacial acetic acid. In the routine work no special study was made of the morphology of the cells. More than six cells per cm. was considered to be an increase.

Globulin Increase.—The butyric acid test of Noguchi and the Ross-Jones ring test were used, no attempt being made at a quantitative estimation other than this.

Wassermann Tests.—The Noguchi modification with antihuman rabbit amboceptor was used, fresh guinea-pig serum for complement, cholesterinized alcoholic extract of human heart for antigen. Amounts of reagents: one c. c. of a 1 per cent suspension of human red cells, two units complement, two units amboceptor, two units antigen, four drops of inactivated patient's serum, two-tenths c. c. or in doubtful cases up to 1 c. c. of spinal fluid. Doubtful and unsatisfactory tests were repeated and none called positive that did not at some time give complete or nearly complete fixation.

Cell Counts.

LUETIC GROUP.

Less than 7 per cm.	27
7 to 25 per cm.	64
25 to 50 per cm.	43
50 to 100 per cm.	60
100 to 200 per cm.	15
More than 200 per cm.	6

Total 215

Of the 215, 134 had counts less than 50 and 194 had counts less than 100 per cm. The highest counts were 285 and 269 in

paresis and 244 in cerebrospinal syphilis. The average number of cells taking all the cases was about 50 per cm. Fluids obtained at different times from the same patient often gave widely varying counts. In general it seemed that the more acute cases had the higher counts. Twenty-seven had six or fewer cells per cm., four of these tabo-paresis and two cerebrospinal syphilis.

NON-LUETIC GROUP.

There were usually no cells or at most one or two. Ten of 285 cases had more than six per cm. Seven of these were organic cases and three dementia præcox, the number of cells being usually less than 15 (one case, organic brain disease, undifferentiated, 54 cells).

Globulin Increase.

In the luetic group seven did not show an increase, four of these paresis, one tabo-paresis, two cerebrospinal syphilis. No definite relation was noticed to exist between the intensity of the globulin reaction and the pleocytosis except that, as with the cell count, the acute cases of paresis seemed more likely to give intense globulin reactions.

In the non-luetic group 16 had a globulin increase, nine of these organic cases, five dementia præcox, one manic and one unclassified.

Wassermann Tests.

LUETIC GROUP.

Of 215 cases 18 had negative serum Wassermann or 91.6 per cent positive. Thirteen had fluid Wassermann negative or 94 per cent positive. Excluding tabo-paresis and cerebrospinal syphilis the percentage positive in paresis proper is somewhat higher; in a total of 11 cases of tabo-paresis two had negative serum and three negative fluid, in three cases of cerebrospinal syphilis two had negative serum and two negative fluid. In paresis proper the serum Wassermann was positive in 93 per cent, fluid Wassermann positive in 96 per cent.

NON-LUETIC GROUP.

In none of the 285 cases was the fluid positive. Table I shows the form of disease of the non-leutic psychoses in which the fluid was examined and the number of each group having positive serum.

TABLE I.*

NON-LUETIC PSYCHOSES HAVING SPINAL FLUID EXAMINATIONS AND THE
NUMBER OF THESE HAVING POSITIVE SERUM WASSERMANN.

	No. cases.	Serum Wassermann positive.
Exhaustive infective psychoses	4	..
Chronic alcoholism	50	2
Chronic morphinism	1	..
Senile dementia	4	2
Arteriosclerotic dementia	24	..
Organic brain disease, undifferentiated	10	..
Dementia præcox	91	14
Manic-depressive insanity	39	2
Involutional psychoses	4	..
Paranoia	3	1
Epileptic psychoses	8	1
Psychoneurosis	1	..
Defectives, all grades	25	2
Unclassed	21	3
Total	285	27

* Figures represent only cases having lumbar punctures and not admissions as a whole which showed 5 per cent serum Wassermann positive.

Peculiar Fluid Findings.

In the luetic group 30 of 215 cases did not have all the tests positive. These are shown in Table II together with the serum Wassermann reaction. Seventeen of the 30 were peculiar only

TABLE II.

TESTS IN LUETIC PSYCHOSES.

Tests.	Paresis.	Tabo-paresis.	C. S. S.	Total.
All positive	169	6	..	175
S. W. —, other tests +	9	..	1	10
Cells —, other tests +	14	2	..	16
S. W. —, cells —, others +	1	..	..	1
S. W. —, F. W. —, others +	2	1	..	3
S. W. +, others —	4	1	1	6
Globulin +, others —	2	1	..	3
All negative .....	..	..	1	1
Total	201	11	3	215
Peculiar fluids other than serum Was- sermann negative	23	5	2	30

in having a low cell count (one, serum Wassermann negative also). The other 13 had fluid Wassermann negative; of these, six had cells or globulin or both increased but the serum negative, seven had all the fluid tests negative (six of these, serum positive). Of the 13, eight were paresis, three tabo-paresis, two cerebro-spinal syphilis; of the eight paretics four had all the fluid tests negative, but serum Wassermann positive.

In the non-luetic group 22 of 285 had some of the tests positive as shown in Table III but in none was there a positive fluid

TABLE III.
PECULIAR FLUIDS IN THE NON-LUETIC GROUP.

	Organic.	Functional.	Total.
Cell increase only	4	2	6
Globulin increase only	6	*4	10
Globulin +, cells +	2	..	2
Globulin +, S. W. + .....	..	2	2
Globulin +, cells +, S. W. +	1	1	2
Total	13	9	22

* One unclassified.

Wassermann. A cell or globulin increase or an increase of both does not seem very unusual in organic cases. Of the nine functional psychoses five were dementia præcox with globulin increase. Hugh Morton* has called attention to the high protein content of the spinal fluid in some cases of dementia præcox.

The diagnosis of paresis at Elgin is not made in the laboratory; the importance of the neurological and mental examination is fully recognized. We agree with Grinker who said in discussing a paper by Barrett' at the 1916 meeting of the American Medical Association, "... the diagnosis of paresis should only be made when the neurological signs are present. Especial attention should be paid to the pupillary reactions, deep reflexes, speech disturbances and last but not least to the positive Wassermann findings in both blood and fluid." The writer is unable to agree with those who say that the Wassermann test cannot be used for the diagnosis of paresis. Cotton* in his article on the treatment of paresis repeats that the Wassermann test (serum and fluid) is negative in about 15 per cent of paretics and cannot therefore

be used except as corroborative evidence, placing the globulin test above it in diagnostic value. Nonne⁹ says that cases serologically negative are not paresis, the serum Wassermann being practically always positive and the fluid positive in 100 per cent using large amounts. Phase I he gives as positive in 95-100 per cent and pleocytosis in 90-95 per cent, but these may be positive, as shown in this series, in just the non-luetic cases where a differentiation is necessary. Kraepelin¹⁰ and White¹¹ place a very high diagnostic value on the Wassermann test; and many others, both those using the original technique and those using the Noguchi modification, have recently reported very high percentages of positive fluids in paresis.

The gold chloride test was not used in these cases but the experience of others¹² has shown about as follows:

- (1) A typical reaction occurs in practically all cases of paresis.
- (2) A typically paretic reaction occurs in cerebrospinal syphilis in a fairly high percentage of cases.
- (3) Non-syphilitic organic cases may give the same reaction as paresis.
- (4) Non-syphilitic functional cases in 5 per cent¹³ to 40 per cent¹⁴ (larger series of cases) give a reaction in the syphilitic zone. Some of Solomon's¹⁵ work tends to show that the difference between the "paretic" and "cerebrospinal syphilis" reactions is one of degree and not one of kind, thus lessening its value where it promised most—in distinguishing para- from tertiary syphilis.

The cases forming the basis of this paper are too recent to say what the final outcome will be, and very few of them have been subjected to the histological examination of the cortex that Orton would require before considering a case of paresis a fit topic for scientific analysis, but they all present the clinical features usually accepted as constituting paresis.

Referring to the introductory sketch of the course of a syphilitic infection, it can be said that a positive serum Wassermann may be found at any time during the progress of the disease. The times when a positive fluid without the mental symptoms of paresis, the so-called "laboratory paresis," may be found are conceivably, first, in the primary and secondary stages with or without nervous symptoms;¹⁶ second, in the "pre-psychotic" stage of paresis, third, during a remission of the mental symptoms. In any of

these three periods (as well as during the active course of his paresis) it is *a priori* possible for the syphilitic to develop mental symptoms of a non-luetic nature.

Concerning the first period we have had no experience. Primary and secondary lesions in our intake are exceedingly rare, so that if fluid changes occur at this stage as frequently as the authors quoted state, it is not strange if we go a long time without finding such a one who has developed a non-luetic psychosis.

Southard² has reported four cases which appear to belong to the second period; in these there were no neurological findings whatever except a convulsive attack in one. Orton,³ while tentatively accepting the doctrine of a "pre-psychotic" stage, thinks that the course should be further watched and that more should be learned of the histology of these cases before coming to any conclusion. None of our cases appear to belong to this group.

Third period: Concerning mentally cured cases of paresis, and cases supposed to have recovered from a functional psychosis but still having some of the neurological and fluid findings of paresis, the frequency and the often remarkable completeness of remissions should not be forgotten nor underestimated. Our experience with neo-salvarsan at Elgin has led us to think that the essential lesion in paresis cannot be influenced and that tertiary lesions respond as well to intravenous as to intraspinal treatment. We do not think that remissions, with spinal fluid still positive, occurring under treatment should be considered as cures, nor even as "arrests," except in the sense that they would be so considered if occurring without treatment. A class in which a doubt has recently rather frequently been expressed, as to the propriety of the diagnosis of paresis, is that beginning suddenly with excitement, presenting a few neurological findings, having a positive spinal fluid and mental symptoms which clear quickly. In this connection the remarks of Lorenz are much to the point. He said, in discussing the paper by Barrett referred to above, "the failures to recognize paresis have been in the cases which simulate the manic phase of manic-depressive insanity," and would "emphasize the fact that paresis may very closely simulate acute mania and that routine Wassermann and spinal fluid examinations may be the only means of diagnosing the condition." Every psychiatrist has seen such cases, which only emphasize the im-

portance of a careful neurological and fluid examination, and in a disease so varied in its clinical manifestations does not call for any additional factor to account for the mental symptoms present.

SUMMARY AND CONCLUSIONS.

At Elgin State Hospital, in the past year and a half, 500 admissions (not consecutive) in whom paresis was for one reason or another suspected, have been given serum and fluid Wassermann tests, globulin tests and cell counts. Of these 215 were luetic psychoses and 285 non-luetic psychoses. The gold chloride test was not used.

The number of cases of tabo-paresis and cerebrospinal syphilis was not sufficient to draw any conclusions except to say that the findings were less constant than in paresis.

(I) *Establishing the existence of paresis.*—In paresis the tests failed as follows: Globulin increase 2 per cent, pleocytosis 10.5 per cent, serum Wassermann 7 per cent, fluid Wassermann 4 per cent.

In the non-luetic psychoses the tests were *positive* as follows: Globulin increase 5.5 per cent, pleocytosis 3.5 per cent, serum Wassermann 9.5 per cent, fluid Wassermann none.

Cell and globulin increase in non-luetic psychoses was found especially in organic cases where a differentiation was important.

There is abundant evidence that positive fluid findings may occur without paresis in the primary and secondary stages, and it is probable that they occur without the mental symptoms of paresis in the "pre-psychotic" stage.

It is not argued that a positive spinal fluid Wassermann is of itself conclusive evidence of paresis, nor that a negative test excludes paresis, but it is so constantly positive in the one and negative in the other that it is of the greatest value, in a case where a differentiation must be made, in distinguishing between a luetic and a non-luetic psychosis.

(II) *The extent of the paretic process* cannot be determined with any degree of accuracy by laboratory tests; it can only be said in a general way that globulin and cell increase seem more marked in the more rapid cases.

(III) *The distinction between a paretic process and a tertiary luetic process*, or the extent to which each is present, cannot be

determined in the laboratory. The gold chloride test is of some help in this direction but the therapeutic test is the only one of much value.

(IV) *The diagnosis of the combination of paresis with a functional psychosis* should be made with extreme caution.

(V) *In making a diagnosis of recovery* in a case of paresis which has cleared mentally the following conditions should be considered:

1. A functional psychosis in the primary or secondary stages of syphilis.
2. A functional psychosis in the "pre-psychotic" stage of paresis.
3. A remission in paresis.

It should be remembered that the first two occur quite infrequently, the last very frequently, the spinal fluid findings remaining positive.

REFERENCES.

1. McIntosh, James and Fildes, Paul, Head, Henry and Fearnside, E. G.: Parasyphilis of the Nervous System, Brain. London, 1913, XXXVI, p. 1.
2. Nonne: Syphilis and the Nervous System, English translation of the second German edition by Ball. Lippincott, p. 374.
3. Wile, U. J., and Stokes, J. H.: A Study of the Spinal Fluid with Reference to Involvement of the Nervous System in Secondary Syphilis. Jour. Cutan. Dis., Sept., 1914, p. 607. Involvement of the Nervous System During the Primary Stage of Syphilis. Jour. Amer. Med. Assoc., March 20, 1915, LXIV, No. 12, p. 979. Further Studies on the Spinal Fluid with Reference to the Involvement of the Nervous System in Early Syphilis. Jour. Amer. Med. Assoc., May 1, 1915, LXIV, No. 18, p. 1465.
4. Proceedings New York Neurological Society, Oct. 5, 1915. Jour. Nerv. and Ment. Dis., March, 1916, XLIII, No. 3, p. 267.
5. Orton, S. T.: Some Considerations of General Paresis from the Histological Standpoint. Am. Jour. Insan., 1916, LXXIII, No. 1, p. 89.
6. Morton, Hugh: Biochemical Examination of the Cerebrospinal Fluid in Cases of Mental Disease. Jour. Ment. Sci., 1911, LVII, No. 236, p. 1.
7. Barrett, A. M.: Syphilitic Psychoses Associated with Manic-Depressive Symptoms and Course. Jour. Amer. Med. Assoc., Dec. 2, 1916, LXVII, No. 23, p. 1639.
8. Cotton, H. A.: Treatment of Paresis and Tabes-Dorsalis by Salvarsanized Serum. Am. Jour. Insan., 1915, LXXII, No. 1, p. 125.

9. Nonne: Der heutige Standpunkt des Lues-Paralysefrage. Deutsch. Ztschr. f. Nervenhe., 1913, B. XLIX, H. 4-6, p. 384.
10. Kraepelin: General Paresis. Jour. Nerv. and Ment. Dis. Monograph, p. 180.
11. White, W. A.: Outlines of Psychiatry, 5th edition. Jour. Nerv. and Ment. Dis. Monograph, p. 135.
12. Solomon, H. C., Koefod, H. O. and Welles, E. S.: Diagnostic Value of Lange's Gold Sol. Test. Boston Med. and Surg. Jour., Dec. 23, 1915, CLXXIII, No. 26, p. 956.
13. Weston, Paul, Darling, I. A. and Newcomb, P. B.: The Colloidal Gold and Other Tests Applied to the Spinal Fluid. Am. Jour. Insan., 1915, LXXI, No. 4, p. 773.
14. Solomon, H. C. and Welles, E. S.: Development of the Gold Sol. "Paretic" Reaction as Compared with the "Cerebrospinal Syphilis" Type, Considered from the Time Necessary to Form a Completed Reaction. Boston Med. and Surg. Jour., Jan. 13, 1916, CLXXIV, No. 2, p. 50.
15. Southard, E. E. and Solomon, H. C.: Latent Neurosyphilis and the Question of General Paresis sine Paresi. Boston Med. and Surg. Jour., Jan. 6, 1915, CLXXIV, No. 1, p. 8.

PARANOID TYPES IN SYPHILITIC DISEASE OF THE CENTRAL NERVOUS SYSTEM.

By E. MURRAY AUER, M. D.,

Central Indiana Hospital for the Insane, Indianapolis.

Paranoid types occurring in syphilitic disease of the central nervous system are not of such infrequent occurrence as not to warrant an individual classification such as is recognized in the demented, grandiose, maniacal and depressed types of paresis.

Kraepelin states that "persecutory ideas may comprise the whole content of the depressive delusions" and that "in a small group of cases we meet a complex of long retained persecutory ideas, especially the delusions of bodily influence by electricity, mirrors and poisons." Mickle in his classification of paresis recognizes a type in which persecutory delusions occur. White in his description of paresis mentions that "delusions of a persecutory character may give a paranoid type to the symptom complex. Ziehen notes the occasional occurrence of acute hallucinatory paranoia in syphilitic disease of the central nervous system.

While the presence of syphilis in an individual exhibiting a psychosis does not necessarily warrant its being the etiology of the same, one cannot but assume such to be the case when there is evidence of syphilitic involvement of the central nervous system as manifested by clinical and laboratory findings; and further, in the localization and intensification of a syphilitic process in one part of the central nervous system one invariably finds pathological reaction to the virus throughout the entire central nervous system to a greater or less degree. The following cases are interesting inasmuch as they exhibit paranoid types of longer or shorter duration with syphilitic disease of the central nervous system.

CASE I.—Male, white, age 67, admitted January 26, 1912. He was committed to the hospital because he was possessed with the idea that members of his family were trying to poison him; that his wife was unfaithful to him and had the house filled with men who were endeavoring to get rid of him.

October 28, 1915. NOTE.—“Patient has a cataract of both eyes; oriented in the three spheres; answers questions readily and relevantly; hears voices and replies to them; he is suspicious of being poisoned, and has delusions of persecution.”

August 17, 1916. The patient has adherent lobules, pronounced arcus senilis and dense opacity of the lenses of both eyes. There is no ptosis or facial palsy. The extraocular movements are unaffected and there is no nystagmus. The tongue is protruded in the median line. There is no motor or sensory speech defect. The grips are fair and equal. There is no ataxia of the upper limbs. The biceps, triceps and wrist jerks are present, prompt and equal. The cremasteric and umbilical reflexes are present. He is able to walk and stand only with the assistance of a chair. There is genu excurvatus and the gait is decidedly ataxic. He exhibits marked ataxia of both lower limbs in the heel to toe and heel to knee tests. The knee jerks and Achilles jerks are lost. There is pronounced disturbance in the lower limbs for the sensation of motion, position and bone conductivity. The other sensations are unaffected.

The patient is oriented in the three spheres and has no disturbance of speech. He exhibits some deterioration in personality and memory which later is grossly, fairly accurate for recent and remote events. At all times he is prone to interpret remarks dropped by others in conversation or in speaking over the telephone as applicable to himself. The following is an example of the ideas that have existed since his admission. “This C. was an attendant here and on the 23d day of October he, G. M., J. L., and another came over when I was there in bed with rheumatism, told me to get up, they wanted to take me to a private room and they carried me upstairs to the City Hospital. The stairs were so narrow that I skinned both of my elbows. C. got a black bottle and made me drink two cups of that stuff and I was lying there in a dying condition. I was in bed for two months and Dr. B. said I had had enough poison to kill 10 men. O'B. kept a grocery and butcher shop and on January 26, 1916, they brought me out here—I was doped when they brought me here.” Who sent you here? “I don't know but C. did the poisoning.” Why? “I don't know, for money, I suppose. I suppose my wife was going to give him some. He was pretty familiar with her. On the 10th, 14th, or the 17th day of October O'B. bought the poison at B.'s drug store. The phone number was 968. He came in the store and asked my wife how it worked and on Tuesday he came to the store and said I'll get something that will work and Wednesday he came in with a package and said ‘here is something that will work.’ About 11 o'clock he came in to take his orders over the phone and my wife said ‘I don't know how to give this’ and he said ‘I'll find out’ and called up B.'s drug store. They said to put a teaspoonful in his coffee and to be careful not to get it in the cup for herself. I went up and patted the butcher on the shoulder and said, ‘I won't drink any coffee this morning.’ All the same I did get a dose and I was very sick. They were afraid I would put them behind the bars, so they put me out here to keep me from it. That O'B. would tap his foot on a board and my wife would get up

and let him in. I would pretend that I was asleep but I know that he would remain in her room all night. I never had a bit of trouble with anyone in my life. But that attendant R. and butcher O'B. made a contract and he said to that R. 'when you complete your work your money is ready.' There are four sets of attendants working against me and if I am murdered there will be four suits of damage against this institution: (1) for accepting me without being examined by two doctors and a squire; (2) for keeping me here four years, six months and 21 days; (3) for breaking my leg; (4) for my death if they succeed in murdering me. As sure as I live that is what will happen to you all, but if I get out of here alive I will give them a receipt in full asserting that I will never bring up any charges against any of them. All the attendants are trying to make this little bit of money on the side and they have even gone so far as to take out a graveyard insurance on me. As sure as I die O'B. and my wife will go behind the bars.

"This morning I could not drink my milk for it smelled so awful and my bread was all soaking wet underneath. The bread is damp every time I get it. It has a funny smell and after I eat it I feel sleepy and sometimes after eating it I can see folks walking before my very eyes. You know, doctor, that one person brings me my tray all the time. They send me in an old tin cup and have the bread cut in funny shapes. These boys have got it in for me terribly."

August 23, 1916. Wassermann of the blood 2+ positive; spinal fluid, strongly positive. There were two cells per cm. of spinal fluid. The Noguchi test was positive and Lange's test read 12554 10000.

CASE II.—H. F., male, white, cab driver, age 59 years. Admitted to this institution March 3, 1915. On February 20, 1915, the patient had an attack of dizziness. He was confused, restless and his speech was impaired. Four days later he suffered a stroke of apoplexy with resulting weakness of the right side of the body. He was very restless, refused food and medicine, thinking it poisoned; became violent, destructive, expressed ideas of persecution and infidelity on the part of his wife, whom he threatened to kill; and stated that he would defend himself against his enemies by burning their property.

March 12, 1915. The Wassermann reaction was 4+ positive on the blood and spinal fluid; there were 285 cells per cm. of spinal fluid. The Noguchi test was positive and Lange's test read 24523 33210.

On examination one month later he showed a hemiparesis of the right side, a speech defect and a sluggish reaction of the pupils to light. The patient was well oriented and there were no delusions or hallucinations elicited.

September 6, 1916. The patient is pleasant, employed and manifests a mildly exaggerated ego. He is oriented in the three spheres except for the year which he calls 16 of 1818. There is a hesitancy, slurring elision and omission of syllables in speaking. There is mental deterioration. When asked in regard to the ideas he possessed at the time of his admis-

sion to the institution he stated that "he does not recall them but reckons he was a bit off." There were no hallucinations or delusions elicited.

The left pupil measures 4 mm. in diameter; right 2.5 mm. They both react slowly and within narrow limits to light, but promptly in accommodation. The tendon reflexes are equally exaggerated. There is no Babinski or ankle clonus. The station and gait are good with the eyes open and closed. There are no manifest objective or subjective sensory disturbances.

August 24, 1916. The Wassermann was 4+ positive on the blood and spinal fluid. There were 96 cells per cm. in the spinal fluid. The Noguchi test was positive and Lange's test read 55555 55530.

CASE III.—Male, colored, age 51 years, waiter, married, no children. Admitted July 6, 1916. Venereal disease denied. On admission it was stated that for the past two months the patient had held conversation with imaginary people, and, to keep from people who were trying to do him injury, would remain on the roof all evening. He thought he was followed by evil spirits and that everyone was trying to do him an injury.

July 8, 1916. The patient W. W. is a well-nourished, quiet, tractable, seclusive, colored male. He is oriented in the three spheres and exhibits a slurring elision, occasional omission of syllables and a tremor of the lips in speaking. His memory is fair for recent and remote events, but poor for exact date. He converses with imaginary voices and derives "his good feeling" from the feeling of the power of the Almighty over him. There were no visual, gustatory or olfactory hallucinations elicited. The patient states that he is not wealthy and has only such means as he works for. He is positive that E. R. and other politicians are intent on getting him here because of his advancing this new political issue. He made every effort to induce them to take him to the convention but they refused. His program is not for any party. It is for the people at large. It was inspired into him and is altogether too deep for anyone to understand. "They all want to make money off of it and it ain't to be sold. Spiritually they offered me three million dollars for it but I cannot accept it. There is many a hidden understanding in the Bible; for example: there isn't a preacher who won't tell you that a bastard is born of woman when he isn't, for he is born of sin. I want to bring about a government fair to the people and take the press off the people. I'll lift the press of the black people and give them freedom." The patient refused to go into detail for fear of divulging a secret. "I want to protect the American people, their flag and their government. They have got to be fair to all the people in the country and it is them trusts that is doing it. The foreigners know that they will make trouble. It is no one but these politicians that is behind all this." The pupils are unequal, irregular in outline and react sluggishly to light and promptly in accommodation. The deep reflexes are equally exaggerated.

July 12, 1916. The Wassermann of the blood and spinal fluid was 4+ positive in each case. There were 6 cells per cm. of spinal fluid. The Noguchi test was positive and Lange's test read 55555 43100.

September 4, 1916. Examination elicits that one H. F., who is trying to get his plans, has used his wife, who is jealous of his former wife, as a tool to force him into this place. His plan is to overcome the dissension existing between the Republican and Democratic parties, making it as one in the effort to protect the American people, the American colonies and the oppressed colored race. He would not combine the parties for fear of kings and crowned heads as America does not want a monarchy. When the proper time comes he will tell his plan of procedure to the one chosen by the people. He has no view of making himself dictator but will merely give this plan, "expired" into him by Jesus Christ, to the one chosen, and occupy himself with overseeing the charity work for the poor. He intends to resist to the last the designs of these politicians and will not give up his plans so long as they intend to keep him here to force it from him for their own material gain.

CASE IV.—The patient, J. E., is a white male 46 years of age. He was admitted on July 12, 1916, in a maniacal state. He was agitated, restless, talked incessantly of his wealth and building plans and carried on conversations with imaginary individuals.

July 14, 1916. Station and gait are good with the eyes open and closed. There is optic atrophy of both eyes, a marked speech defect and the tendon reflexes are equally exaggerated. The patient has no insight into his condition. He hears the voices of Jesus Christ, of his wife and his friends. He is disoriented in the three spheres and his memory is poor. He has many ideas of a grandiose character but at times he is very irritable, talking constantly, cursing and swearing at his enemies and replying to their taunts and reproving them for their failure to give him the privileges his wealth warrants, and accusing them of having taken the same. At other times he laughs, preaches, and talks of his extensive housebuilding in Marion whereby he made his tremendous fortune.

July 26, 1916. The Wassermann of the blood and spinal fluid was 4+ positive. The spinal fluid was clear with 69 cells per cm. The Noguchi test was positive and Lange's test read 55555 55200.

CASE V.—The patient is a white male, married and 35 years of age. He was admitted January 11, 1916. For two months previous to his admission he had constantly imagined that some one was going to injure him. He thought this was being done by shooting perfumes on him that smothered him. He would be standing quietly and suddenly cry out "they have shot me" and put his hands about his head. There was evident loss of memory and the patient was unable to carry on a coherent conversation. He stated he received messages through the air and complained of being shot with a hyperdermic of cocaine. He threw his clothing away saying that he smelled the fumes of electricity on them. He would wander around the house at night thinking people were following him and throwing electricity on him, and wanted to shoot these people with a gun. The family history was negative and venereal disease denied.

March 21, 1916. The patient is incoherent, speaks of abuses on the part of those committing him to this institution, has no insight into his condition; is disoriented, his memory is poor for recent and remote events, and the tendon reflexes are exaggerated.

September 11, 1916. Well-nourished, tractable, suspicious male who may frequently be seen to smile to himself in a silly, self-satisfied manner. He is oriented in the three spheres. When asked as to the mental condition of those about him replies that it is not any of his business to see if there is anything wrong with the patients of this institution. When speaking rapidly he exhibits a slurring elision, tremor of the lips and reduplication of syllables. His memory is poor for recent and remote events. Who was the first president? "No necessity to waste my mind on a thing of that sort. That's not going to purchase back the state of Nebraska. I am minding my own business. There are two populations to-day, the white and the negro population, and President Wilson between them." Where were you born? "West Lawn. Don't you know you are writing down a piece of pre-arranged murder when that piece of paper goes out of Indiana. My wealth is untold." How did you make it? "Wheelwright, I made it between two statements, unsound mind and good judgment of Indiana. I was on the black list and was turned out of the state of Indiana. The state of Indiana put me on the black list pronounced in the state of Nebraska in crossing the state line of Indiana. Guess I am full of delusions yet, if you don't understand me. Indiana put me on the black list trying to spite the state of Kansas. You see I made a few debts in Indiana. That's all been fought out in the state of Nebraska. Over a few debts a cross between the states of Indiana, Nebraska, and Kansas. If that's me talking to you to-day it will be me talking over in Indiana and you're gone for. Indiana would'nt produce me to the government. The whole state of Indiana is my enemy. It beat me in a legal suit. It is my only enemy. P. C. (patient) was put to death in Dr. W.'s office by all the laws of the constitution." Frequently the patient succeeds in a rapid line of irrelevant, incoherent talk. What are you worth? "What is the value of Indiana twice over? Fix up anything you want to, doctor; it will never work." Why were you placed in jail? "They were making me see the Swedes. That was the wheel running don't you suppose—the unsound mind and good judgment. I guess that would be a wheel. How do you fight a defense, doctor, by a fellow held in a state? The idea was to get them to testify by the brain watches out of the state of Indiana—the colored people across the line to Nebraska. My stomach was taken by a squirt-gun in the dining room of the insane asylum and all the way from pure acid to muriatic acid has been injected into my stomach. Changes will have to be made in me before you can produce any of the acids. Produce me before the inauguration if you have got to do it." While the electric wires were being laid in tubes through the building this patient was in constant terror lest these tubes were loaded with dynamite by the state of Indiana.

The pupils are unequal and irregular in outline. The right pupil is sluggish and reacts within narrow limits to light; both react promptly in accommodation. The left knee jerk is decidedly exaggerated over the right.

February 10, 1916. The Wassermann of the blood was 2+ positive.

March 23, 1916. The Wassermann of the spinal fluid was 4+ positive with 36 cells per cm. The Noguchi test was positive and Lange's test read 55555 43200.

CASE VI.—The patient, L. R., is a married female and 37 years of age. She was admitted August 17, 1915.

On admission it was stated that patient became possessed with the idea that some one was after her and was trying to kill her. At times she was violent and profane, threatening to kill her husband, mother and father. She had the idea of infidelity on the part of her husband and thought people were around her and that her husband came with automobiles, other women, Indians and children.

October 9, 1915. There were no hallucinations elicited at this examination. The patient is tearful and suspicious; has no insight into her condition and shows considerable mental deterioration. She thinks her being here is the result of spite work and refuses medicine, etc., for fear of it being poison. There is a marked speech defect, the pupils are unequal and sluggish, and the patella reflexes are bilaterally increased.

September 13, 1916. The patient is suspicious, depressed, shows profound mental deterioration and is disoriented. She still has vague delusions in regard to persons abusing her to obtain her money and endeavoring to poison her.

August 25, 1916. The Wassermann of the blood and spinal fluid was 4+ positive with 40 cells per cm. of the spinal fluid. The Noguchi test was positive and Lange's test read 25544 21000.



THE EPHEBIC PSYCHOSIS.

By ARRAH B. EVARTS, M.D.,

Assistant Physician, Saint Elizabeths Hospital, Washington, D. C.

It is to Kraepelin that we are indebted for our conception of dementia precox. Previous to his writings it had not been separated from other disease processes which were superficially similar. His concept was of a disease beginning in adolescence, taking any one of three forms, the hebephrenic, catatonic or paranoid, and ending eventually in dementia. Others have objected to this as being too broad. Many who differed, notably Clouston, have described what they termed Adolescent Insanity. Clouston taught that the period of puberty, with its comparatively sudden organic change and acquisition of the generative function, its many new desires, interests and emotions, is nature's testing time; and that adolescence, or the years extending from puberty to complete nubility, roughly speaking, from 14 to 24, are fraught with peril to any individual, especially if there is any inherited predisposition. A few years later there was found a marked tendency to consider the names, Adolescent Insanity, Insanity of Pubescence and Dementia Precox, each the perfect synonym of the other and many articles were written in which no differentiation was made. Our understanding of Dementia Precox, however, has undergone much change since it first received its name, and we now conceive of it as allied on the one hand to purely functional disorders because of the emotional conflict which is capable of resolution and a more or less efficient adjustment; and on the other to the organic conditions because of the terminal dementia and the almost indescribable "precox brain" of the autopsy room. This has widened the breach between Adolescent Insanity and Dementia Precox until now we frequently find such ideas as the following:

The insanity of pubescence, which may develop between the ages of 14 and 20, might properly, I think, be divided into two classes, one a simple psychoneurosis, which is but a slight and temporary disturbance of the mental balance, and in a short time, with proper care and attention, disappears once and for all; and a second, which is a true psychosis, the beginning of a mental deterioration and an incurable mental disease. (Trowbridge.)

Time and again I have seen boys recover from pubertal disturbances which seemed so severe as to be necessarily mind destroying. (Burr.)

Slight attacks of nervous and mental derangement, not requiring hospital treatment, are by no means uncommon in those predisposed to the neuroses at earlier ages, especially in the female sex, and if general health, strength and nutrition are poor, puberty is liable to cause neurotic symptoms in those cases. (Clouston.)

The various psychoses and neuroses abound in adolescent life as at no other period, not even excepting the menopause . . . but these nerve affections are only temporary if thoughtful attention is given to their direction. (Fuller.)

Pubertal Psychoses.—This is a group of mental disorders without specific symptomatology, showing now this and now that variety of erratic behavior, and because of the usually temporary nature of the aberration more often seen and recognized by the general practitioner or by those especially in contact with adolescents, than by psychiatrists in institutional work. (Healy.)

Sometimes this erraticism [referring to the instability, and disequilibrium of puberty—author] becomes so extreme as to verge on an actual psychosis. (Bronner.)

That adolescence is a most terrible ordeal we have only to recall our own unrest, inefficient strivings, hitherto unknown questionings and soul searchings, and dissatisfaction with everything symbolic of our just passed childhood, to accept without question. Kipling, whose writings give many half revealed glimpses of some period of bitterness and disillusionment, says: "If there is any terror or despair equal to that of adolescence it has yet to be discovered."

There are many reasons for the strain of these years. Up to this time growth has been steady and has proceeded at an almost uniform rate along parallel lines. Now there is a sudden rise in the curve of growth, the suddenness alone causing more or less unrest. Moreover, progress is now uneven. Muscles do not keep pace with bones, and the result is an incoordination, which leads to awkwardness. Often the adolescent suffers from growing pains and cramps. His stature increases rapidly for a while, then the growth is confined to the muscles, often the large muscles concerned in the grosser movements; they in turn, become overbalanced, and the pendulum of growth swings again in the opposite direction. Access of power is also uneven. For awhile he has scarce enough energy to motivate his body, and again he has a seemingly inexhaustible supply. There are many vital changes in

the organs at this time. Those concerned with the work of nutrition and elimination have each its own problem of uneven growth, as well as the necessity for adaptation to all the idiosyncrasies of all the other organs, and to the fluctuation of the entire body which puts constantly changing demands upon its faithful servitors. Besides these, there are certain glands whose presence before puberty has been a negligible factor, which now increase rapidly in size and begin to functionate; *i. e.*, the thyroid, testicles and ovaries. The internal secretions of the developing glands are discharged and thereby factors enter to which the growing body is unaccustomed and scarce knows how to manage. The thymus finishes its process of atrophy, and whatever use it served, the body must now do without. These many new demands upon the heart cause it to become irritable until its growth has been adjusted to that of the body. Over all of these presides the brain and nervous system, who now find themselves unable to control what has hitherto been an orderly machine, and who must become reorganized and enlarged if the youth is not to meet disaster. In some children these changes proceed slowly and there is little realization of them, while in others the advance is literally by "fits and starts," the disequilibrium great and the consequent suffering not to be despised.

These are but part of the changes taking place in the body during adolescence, which constitute a problem difficult of solution. Here we find the roots of much physical disability, sometimes amounting to actual illness, and sometimes only to a lowering of the general efficiency. However this is but a passing phase and when the youth has once reached a plane of stable equilibrium these minor ailments disappear. Here, too, we find the roots of many psychoses besides dementia precox. This line of thought centers attention on the individual exclusively, making each break an entirely individual matter. Led by the teachings of Stanley Hall, we have found a much deeper, broader and more satisfactory concept of adolescence and its meanings. We had already learned that ontogeny is but a recapitulation of phylogeny; that each individual in reality lives the history of his biological development from a unicellular organism; that he also lives again through the various stages of savagery and barbarism to his normal level of civilization; that in very truth a day is as a thousand years and a

thousand years as a day. Hall teaches that childhood is the remnant of perhaps our earliest prehistoric existence, a time when we were but little differentiated from the purely animal life surrounding us, when our life span was short, the individual early thrown upon his own resources and adulthood as we know it a thing which it had not entered the heart of man to conceive. Hence childhood is complete in itself, and with its passing the individual enters upon an entirely new existence.

Adolescence is a new birth; the recapitulation of the new birth of the race, that time in the dim and distant past when we began to struggle against the bands which held us to a lower plane and to aspire to higher things. We became conscious, although in a most hazy form, of our destiny and were groping for the light in the midst of heart break and despair. Love was born. Religion began to take form. Although its earlier manifestations were what we now call magic, they revealed our terrible sense of dependence and longing to acquire the attributes of Deity. Home emerged from the herd. Self-sacrifice for the coming race appeared even though it was distorted, cruel and bloody. Wandering tribes began to cease their migrations and agriculture and the domestication of animals had their primitive beginnings. The matriarchate gave place to the patriarchate. Law and order were recognized. Right and wrong were differentiated. Our very bodies changed to accommodate the unceasing yearnings of our souls. But the goal remained elusive, ever receding as we advanced, ever inciting us to greater and greater effort. Each advance was made after ages of half-blind effort and failure which could not produce despair. Each new height attained became a base from which a new vision was seen and we passed forward like Longfellow's youth

"Who bore, mid snow and ice,
A banner with this strange device,
Excelsior!"

Records of our advance have been few. Some pottery in a mound here; some rude implements there; some weapons left on an old battleground; some crude pictures on the wall of a cave; some skeletons among the buried dead. Yet in a different sense ineffaceable records were left in each individual life, awaiting the coming of one who should possess the key and reveal to us our-

selves. By virtue of the great wealth of racial memories stored in our unconscious we are able to understand childhood and youth.

Adolescence is the time when the boy or girl makes the greatest change in his attitude towards his environment as well as in his own body. It is the time when old safe moorings are loosed and he must enter the upward struggle; when the older purely selfish viewpoint must give place to the advancement of the race. At this point the greatest advance is made just as the greatest growth of the long bones is at the epipheseal line. Small wonder then that this is a state of unstable equilibrium; that the youth is now calm and now irritable; now hypercritical and now lacking in powers of judgment; now confident and self-reliant and now quaking with an unknown fear; now pressing steadily forward toward the mark for the prize of his high calling and now faint with despair of ever reaching it. It is reasonable to expect, therefore, that the psychoses, being themselves a failure of adjustment to reality, can very often be traced backward to an unusual struggle during adolescence, even if they do take their apparent rise afterward. We may then reason either that the true origin of the psychosis was in adolescence, or that the individual by reason of an inherent defect is shaken first by the disharmony of this period, later to be overwhelmed by inability to meet a supreme demand.

The attention of the writer was called to Healy's Pubertal Psychoses by several cases admitted to Saint Elizabeths, in all of which adolescence apparently precipitated the attack, and in all of which recovery took place with practically no impairment of efficiency. These are all young girls of the colored race, there being several reasons to account for this. The writer's work is chiefly among the colored women of the hospital, yet it might be added that no similar cases have been admitted upon the white receiving service during the same time. There is considerable poverty among the colored people of the District of Columbia, hence petty law breaking is common, and when for any reason a colored family is unable to cope with the vagaries of its adolescent members, recourse is had to the Juvenile Court or to the Board of Children's Guardians who maintain several occupational schools of different grades of discipline for their charges. It is the practice of both of these organizations to send a child who continues refractory to us for study. Most of these are beginning precoxes or constitutional

inferiors of severe grade, but from them the following cases were selected because they were different, and apparently belonged to that class which has always been recognized as making a good adjustment and continuing to live a normal life after regaining their equilibrium.

B. D. Aged 16 on admission June 15, 1914.

Nothing could be learned of this child's antecedents. Ever since she could remember she had been under the charge of the Board of Children's Guardians, who had no information concerning her family. She had been cared for by various colored families of the District of Columbia during her earlier childhood, and her only memory of these homes was that she frequently ran away. The Board finally placed her in Cook's Home, one of their mildly corrective institutions. She became more self-controlled and a place was found for her with a white family in Virginia where she cared for the children and received \$1 per week. She remained here three years and it was evidently a very happy period in her life for it contained many pleasant memories. She was persuaded by the cook to leave and go to the latter's house, where she remained for a month before being found by the Board of Children's Guardians. She has never been able to account for her desire to leave this family and has regretted it greatly since. The Board then brought her back to Washington and put her under the care of Mamie Thomas, a woman with whom she had lived when very small. B— always had a vague idea that this woman was her real mother, but this is probably a wish-fulfilling phantasy on her part. Again she entered service in a white family and life was pleasant for a year and a half. The Board then decided that she must earn more. However, this mistress did not feel able to increase her pay but returned her to the Board.

For some time B— had been quite childish and the Board feared grave conduct disorders on her part. Accordingly they put her in the House of the Good Shepherd in Baltimore. Their fears proved groundless, the child had never departed from the straight and narrow way. She willingly entered the various activities of the House of the Good Shepherd and was assigned to work in the laundry which was much harder work than anything she had done before. Her memories at this point merged into a confusion. She could not recall later instances of her life there although she could reproduce quite graphically her earlier picture of the place. She could not remember her return to Washington nor the events preceding her admission to Saint Elizabeths Hospital. Her medical certificate stated that she talked continuously in a rambling incoherent manner, and was very destructive to both furniture and clothes. When admitted here she was markedly confused, was completely out of touch with reality, was silly, restless, full of mannerisms, rocking, holding her head shyly on one side, making motions in a playful manner with her hands, said she was going to be poisoned, hallucinated her father in the room, thought she was going to be shot, attention could not be gained, was constantly untidy in habits

and appearance. She improved steadily under treatment and in two months she was attempting to help with the work. Her first efforts were poor, but she was persistent. She became able to cooperate with her physician in reviewing her life and the mental catharsis thus obtained dispelled the remnants of her trouble. She became bright and cheerful, always scrupulously clean and tidy, a most willing and efficient worker, but withal somewhat childish. She responded fairly well to the mental tests and to the Binet-Simon scale she had a basic age of nine years with additional tests which gave her a psychological age of 10 plus. While with us she grew and showed considerably more physical development than when admitted, her menstrual function became well established, her ambition to again become self-supporting and try to make something of herself returned. She reached her own conclusion that her psychosis was due to her state of physical unrest and instability and she said she felt confident and secure. She left us after a few months of care and has now for three years lived a useful and happy life, in domestic service.

M. B. Aged 15 on admission.

This patient can barely remember her father, who died when she was very young. Her widowed mother was unable to support the three children of whom M— was the youngest, and at the age of five she was put under the care of the Board of Children's Guardians. She was first cared for by a colored family who had little control over her, for she used to be on the streets a good deal and often ran away. The Board soon changed her to another colored family where much more was expected of her. Here she had many of the lighter tasks of the household to look after, and especially she "minded" the younger children. She was also sent steadily to school where her work was as good as the average colored child's. She was ready for the sixth grade when the Board sent her to an industrial school in Washington to learn domestic service. She had always had periods when she was hard to control, but was growing definitely contentious and quarrelsome. Soon after entering this industrial school she became restless, wandered about the rooms, tried to get out of the windows, refused to work, became irritable and saucy, and had intervals of crying and screaming. She became confused, could not find her way about the house and would get lost in the yard. Because of these things the patient was finally sent to us for observation. When received she was quiet and respectful, alert and inquisitive. She told of her own life freely, but her memory was quite barren, which is a pronounced racial characteristic. She responded fairly well to the various intellectual tests and the Binet-Simon scale gave her a basic age of seven and a psychological age of eight. For some time she was a more or less troublesome patient. She was fond of teasing the other patients, could not keep her clothing properly arranged or herself clean or tidy. She did not seem to know how to dress herself or to do even the simplest household task upon the ward. She was very easily influenced to mischief by any patient who was so inclined, although if left to herself she was not unruly. There was very little change for

three months, when she had an outburst of unusual irritability and violence, lasting for about a day. This never recurred and after the storm had cleared she faithfully tried to keep her clothing in order and to work when asked, but all efforts were clumsy and ineffectual, as if she did not know how. There was evidenced, however, a steady although slight improvement. She was in this state about six months after admission when G. W. (*vide infra*) left the hospital. One of the last things G— did was to talk to M—, tell her to be a good girl, keep herself clean, help her nurses and then she too would get well and be able to leave. The following day M— announced that she was going to take G—'s place upon the ward. This she did very creditably and it seemed as if she knew immediately how to work. As soon as it seemed expedient the whole episode was gone over with her. She remembered of feeling sick at the industrial school, but she did not know what was the matter. She had a vague memory of her confusion and irritability, and the only explanation she could find for it was that she could not help it. She added that she felt much "different" than formerly, that she no longer was inclined to be silly, and was able to control her irritability. She said that she learned for the first time from the other girls at the industrial school of the menstrual function. When her own periods began they were hard to establish, she had considerable pain, and she often suffered from dizziness and a feeling of fulness in her head. Then she began feeling queer and could neither understand nor explain her own self. When admitted she was a large, well developed girl and did not change during her residence here. While under our care she became regular and her distressing symptoms disappeared. She said she "just deliberately got well because she wanted to." Her feelings of unrest disappeared and she felt stable and confident. She returned to the industrial school, finished her training and has been doing domestic service since. She is not a very capable or efficient servant because of her inherent defect, but she is not insane.

E. T. Aged 15 on admission.

This patient's forbears were slaves doing the lower grade of labor on the Maryland plantations. Her father was a confirmed alcoholic and was described as being "very good when he wasn't drunk." He deserted the patient's mother, who was his second wife, when E— and her brother H— were small, and is now living in a neighboring city with another woman. Her mother is a most inferior colored woman, dirty, quarrelsome, malicious, domineering, who earns an indifferent living doing indifferent laundry. E— had many half brothers and sisters both maternal and paternal, of whom nothing derogatory could be learned. The only one seen, her mother's daughter, was a normal and apparently efficient colored woman of the domestic type, living in her own home. The home in which E— grew up was small, dilapidated, poverty-stricken, and dirty, ruled over with an iron hand by the mother, who used to say with a baleful gleam in her eye that her children all had to mind her "just like children of eight," or she would not have them at home. The older children had evidently

solved the difficulty by leaving. Several months before E—— came to us, H—— ran away to his father and flatly refused to return.

In this hostile environment E—— grew through childhood with no other manifestation of trouble than an occasional "nervous spell" when her mother would make her go to bed. Just what these may have been could never be ascertained, the mother's ignorance being too great for her to give any further information concerning them. E—— herself had no memory of anything particularly unusual and the writer always inclined to the belief that they were reactions to the mother's harshness. E—— began school early, learned fairly well, was usually in the middle of her classes, had to repeat the fifth grade, being deficient in arithmetic and spelling, and was in the sixth-B grade when she stopped. She said she had minded her mother and been a good girl until she reached the age of 14. Her menstrual function had then become well established and she had reached in a very short time the full flower of her womanhood, as is common in her race. Her mother's extreme rigor did not relax. She never allowed her to go anywhere with the other girls and boys, and gave her very little recreation of any kind. She sought sympathy from her schoolmates and they advised her to seek intimate relations with the boys, telling her that in this way she would be a woman, be able to break away from her mother and do as she pleased. Accordingly she knew carnally several colored men and boys of the neighborhood. She insisted that there was no pleasure in this for her. Her primary object seems to have been to achieve womanhood, the sinfulness of this act not being sufficient to deter her. After reaching the sixth grade she began playing truant. R——, a grown man of her own race, came to the school at recess and persuaded her to go to town with him, which she did twice. Both times she was gone only a few hours and returned to her mother without telling her what she had done. Both times she went with R—— to a house, the character of which she did not know, but thought it was his boarding house. Both times she submitted to his sexual advances. Her third and last truancy occurred in May, 1914, in order that she might go to the circus, a thing which her mother had forbidden because of lack of money. Her mother, supposing she had been kept after school, did not begin hunting for her until late and then found her alone on the circus grounds. Her guardianship, however, must have been very lax, for she allowed a man whom they used to know to pay the way of both of them into the circus. The child left the tent first, her idea being to get away for fear of the punishment which she knew would be forthcoming. At this opportune moment she met R—— who took her to a house overtown. She remained here several days but did not again accept his attentions. She then secured work as a child's nurse. Her work was satisfactory and she had no trouble. Had she been left alone her problem would very likely have been solved and she would soon have been in a home of her own. She had held this position two weeks when the next chapter of her life began suddenly.

Her mother, missing her the second time on the circus grounds, became exasperated, went to the police precinct and asked them to search. At

the same time she preferred charges against R—. After a lapse of two weeks E— was located at her place of service and taken to the House of Detention. R— was later apprehended. While in jail he became ill and died shortly after from an attack of appendicitis. In the meantime E— was taken before the Juvenile Court. Her mother complained bitterly of her and said she did not want her home for a year. The court accordingly sent her to the National Training School. The fierce fires of her mother's wrath were soon burned out, she forgot her wish not to have her daughter home for a year and tried every means in her power to get her out of the Training School, even trying to take out *habeas corpus* proceedings when she met with failure along other lines.

While at the Training School E— had several attacks of temper and excitement. One came while she was under quarantine. Her mother and sister had visited her but had been refused permission to see her. She, however, climbed into her window and in this way talked with them. They told her of the death of her sister's husband. After they left she became very much excited, screaming and pounding, and broke several panes of window glass and two rocking chairs.

Some time later another girl made a homosexual assault on her. This she resented promptly and to such good purpose that the other girl complained of her violence and she was given five days in confinement on bread and water. She registered her resentment of this treatment by tearing up her blankets. These are but two instances of her trouble there. The Training School was compelled, by reasons beyond its own control, to deny her the one thing she had been struggling for since the dawn of adolescence, liberty. She could not solve the problem now by running away and taking a place of service as she had done before, and the only other avenues of escape she could find were those of destruction and illness. She, who had never been sick before, developed appendicitis for which it was necessary to operate; she had repeated attacks of tonsilitis, and finally a tonsilectomy was performed; and she had one of the childish exanthemata. During one period of seclusion she showed many marks of hysteria, allowed pins to be stuck into her with no sign, and then had an amnesia for the whole episode. She was taken to a hospital for treatment. She said that there no one understood her and no one believed her. She was put into a room in which she knew there had at one time been a skeleton. She was greatly terrified and did not want to go in. She fought the orderly who put her in. After she was left alone she went out of the room but was standing quietly in the hall and had no other thought than to get away from the haunting skeleton. She was then put in handcuffs and returned to the room. Later she threatened to strike one of the nurses with a table leg. She said that this nurse had, with no provocation, come to her and said, "I hear you are a great fighter but I don't care who fights me. I'm going to get the best of them if I have to kill them, do you hear, if I have to kill them." E— did not answer at the time but later, at the instigation of another girl from the Training School, she pretended to strike her, although she really did not intend to hit her. Now, this particu-

lar room had never had a skeleton in it, and the nurse in question, quite naturally, denied saying any such thing to the patient. The actual truth of these things is not of so much importance; they were true to E——'s consciousness and therefore were sufficient reason to account for her conduct. She was considered a most treacherous, untruthful, dangerous and even homicidal patient and was very soon sent to us. Because of these reports which had preceded her, she was watched with the greatest care. She came to us willingly, was pleasant and alert, showed no evidence of the tendencies ascribed to her. She was soon given the chance to tell her story. When the talk began she was evasive, on her guard, ready in an instant to take refuge in sullenness, but when she found herself met with sympathy and understanding instead of the nightmare of censure which had been her portion for so long, she responded with a brightening face, a willingness to tell the whole truth with no attempt to shield herself, and every evidence of appreciation. She responded well to the mental examination and had a psychological age of 15 plus to the Binet-Simon scale. Physically she was in fine health, a large, well developed, attractive looking young colored girl. She soon began to work, was happy and contented, gradually attained a fine poise and was eager to go home and try again. While here her only conduct disorder was a wholly unexpected attack upon a parole officer from the Training School who visited her. This was entirely caused by a misconception on E——'s part. She thought this officer had come to return her to the Training School, and could not be persuaded to the contrary until after the officer had left.

For two years she has been at home. Her environment is most unkind, her mother as lacking in true mother love as ever (she does not attempt to train her for any sort of place of service and flatly refuses to allow her to marry a young man to whom she became greatly attached); yet in spite of this E—— has kept a fairly even course; while her conduct is not exemplary, it is as good as is usually expected from her people and she is certainly showing no signs of mental trouble.

G. W. Aged 14 on admission.

This child's people are ordinary well-meaning colored people of the domestic class. She was born without father and her mother was drowned when the child was about 10 years old. She had always been cared for by her mother's people, usually the grandmother who is still a young woman. They all conspired to spoil her, made no demands upon her, not even regular attendance at school, shielded her from all that was hard and disagreeable because "the poor child has no mother you know," were content to keep her a baby, which was what she herself desired with all the power that was in her. She had, however, been a good, happy "baby," responding well to their love and petting. She had spent part of her time in the country in Virginia, and part of it in Washington. She did not care at all for her books and there was no spur at home for her ambition, but in her few desultory years of school she had managed to reach the third grade. She began to menstruate at 13, but was irregular and the function had

disappeared entirely for several months before she came to us. At about the time her womanhood was struggling for its establishment, she became definitely a truant from school. After working with her for some time without result, the truant officer took her before the Juvenile Court and she was sent to the Training School. While there her teachers reported that she was good, docile and obedient, giving them no trouble except for repeated fainting attacks of which they really knew very little. It was because of these that she was sent to a general hospital, where she was considered psychopathic and sent to us. Here she was cheerful, happy, good in a negative way, but infantile, dependent, mentally undeveloped. She was unable to respond to our ordinary intelligence tests because of her ignorance; the Binet-Simon scale gave her a psychological age of 8½ years. Physically she was normal. With no other treatment than good hygiene and regular hours, her menses were reestablished and became normal.

The interest in this case centers around these so-called fainting spells. As already said they first appeared at the Training School. The accounts given of them by G— herself, her teachers at the school, and E. T. (*vide supra*) do not agree as to circumstances, but the one fact underlying their origin was plain in all their stories; they were protests against the demands of her environment the meeting of which would have meant her own recognition of responsibility, whether they came at play, at work or at study, and they were always bids for the sympathy and babying she had received at home. The first one which she had here followed a short period of excitement on one of the wards in which G— was merely an onlooker. Shortly afterwards she was removed to a ward on which a number of epileptics were cared for, and she saw for the first time the convulsive seizures from which these poor patients suffer. Her own attacks were still precipitated by some demand to which she could not measure up, but they were progressively better and better imitations of the epileptic convulsion. During them she "died" symbolically, then gradually went into a general muscular paroxysm during which she threw her body from side to side, thrashed her arms about, beating the floor rhythmically with her fists, first on one side and then on the other. She talked in disjointed sentences, apparently addressing someone whom she hallucinated not far from her. "Mamma, mamma, take me home, take me home. You didn't take me home, you know you didn't. I'm a good girl now and you never did take me home. I listen at everything you say," etc., with many variations and repetitions. This was all spoken in a pleading, half-crying manner, with arms extended toward some invisible being. In an instant her manner changed, she became childishly irritable and angry. Her gestures were now those of expostulation and were suited to her words; "What did you come to see me last night for? Go on out of that door, go on! I'm a good girl, you tore my bed up when you came to this house and you didn't take me home to my mamma. What did you put that thing over my face for. I told you last night to stop. I ain't dead. Don't you look here again after me, you can take me home to my mamma, you can take me home." During all of this time she was acutely alive

to her surroundings, as shown by the fact that she interjected into the above tirade in her normal voice and manner, "I ain't cold," when the nurse tried to throw a gown over her shoulders. She recovered quickly, rubbed her eyes sleepily and said she felt all right. She told us that it was her mother whom she first saw and talked to, but all attempts to find out who the one at whom she was so angry might be met with failure. Keeping her mind focused on these thoughts caused a return of her attack. Although these resembled the grand mal of epilepsy superficially, there were many cardinal points of difference. The paroxysm itself was a rhythmical movement of the limbs and body as a whole, not convulsive pitting of antagonistic muscles against each other. Respiration was rapid, but the muscles of respiration were not convulsing. She never lost control of bladder or rectum. She never bit her tongue or cheeks. She never lost consciousness. She talked during the height of the paroxysm. She recovered quickly with no subsequent feeling of ill being. She could enter these apparently at will.

This child was not a good subject for very much analysis because she had never emerged from the infantile. One day when she was begging to go home and asking why she was kept here we talked to her as best we could of her resistance against growing up, her preference for being a baby. She grasped the idea remarkably well, showed a healthy reaction of anger and said: "Well, I will grow up to be 15 all over. I'll just show you!" From that time her mental improvement was steady. She soon begged for a doll which was supplied by her grandmother and she played with it as small children do. It was not long, however, before she had outgrown this, and began caring for the other patients on the ward, as a half grown girl cares for smaller children. She continued to sublimate in this way, taught the others a great deal about personal cleanliness and conduct and was really a very successful leader. She also progressed from the mere doing of certain tasks about the ward to assuming responsibility for the care of a certain number of beds and one large clothes room, her work being very satisfactory. She had several remissions to her childish attitude, but there was no return of her convulsions after she once understood their true origin.

G— has been out of the hospital for a year and a half, with no sign of mental trouble other than her primary defect. She soon married, in due course of time became a mother, but lost her baby. She has been working nearly ever since being out, as maid in a general hospital in the city.

Of these four cases, three were below grade mentally by the Binet-Simon scale, the fourth at par; two showed some hysterical features which is supposed often to be the forerunner of Dementia Precox; three showed a transient confusion; only one gave evidence of hallucinatory experiences; all showed more or less conduct disorder even to the point of becoming antisocial; none of them reproduced any part of their phylum. They have in common

the one feature of their trouble being an adolescent phenomenon, clearly defined to their own consciousness with three of them, and deeply repressed in the fourth. They all made an excellent recovery from their mental symptoms, with return to their normal mode of life, to which they have held in spite of difficulties which easily might have brought refuge again in a psychosis. One of them was a more useful member of society after the episode than she had ever been before.

Indeed, these cases remind us strongly of Healy's sentence—"without specific symptomatology, showing now this and now that variety of erratic behavior." Whether they will also prove to be "but a slight and temporary disturbance of the mental balance" time only will decide. Suffice it to repeat that none of them showed archaic regressions upon which to base a grave prognosis, that they made excellent recoveries and give every promise of being able to remain stable for the remainder of their lives.

Cases of this type are often lost to future study by our methods of diagnosis—undifferentiated psychosis, constitutional inferior, etc. Yet the fact that they bear a specific etiology, being always a reaction to the trying time of puberty, with good prognosis as to recovery when they once become equilibrated, with a symptomatology that differentiates them from the clearly defined psychoses, would make it seem that they are deserving of a name of their own. For such a name the writer would like to offer *The Ephebic Psychosis*. As already said we have grown away from the earlier conceptions of Dementia Precox as being the Adolescent Psychosis, yet the use of this name for cases which in reality are psychoses associated with adolescence, would only lead to confusion. While the Ephebic Psychosis is the same in actual meaning, ephebos being the Greek for youth, the name does not have the content of the more familiar term. This name, like the name Prison Psychosis, centers attention upon the causative factors in the case rather than upon the picture presented by the case itself. While it would be an excellent classification for such cases as they stand, it would not in any way invalidate a later diagnosis of Dementia Precox if certain individuals found themselves actually unable to cope with the world and did regress to primitive levels.

REFERENCES.

- G. Stanley Hall: Adolescence.
Louis Starr: The Adolescent Period.
Jelliffe and White: Diseases of the Nervous System, Chapter XX, Dementia Precox Group.
A. R. Defendorf, M. D.: Clinical Psychiatry, Chapter on Dementia Precox.
T. S. Clouston: Mental Diseases, Chapter XVI, The Insanities of Puberty and Adolescence.
William Healy, M. D.: Pathological Lying, Accusation and Swindling.
William Healey, M. D.: Delinquency and Crime in Relation to Mental Defect and Disorder, in Modern Treatment of Nervous and Mental Diseases by White and Jelliffe.
Augusta F. Bronner, Ph. D.: The Effect of Adolescent Instability on Conduct. The Psychological Clinic, Vol. VIII, No. 9.
Louis Fangères Bishop, M. D.: The Debility of Adolescence. Journal of American Medical Association, Vol. XXXI, November 5.
Frank M. Fuller: Adolescence, Its Relation to Primary and Secondary Disease. The Journal of the Iowa State Medical Society, November 15, 1914.
J. Montgomery Mosher, M. D.: The Psychosis of Adolescence. The Albany Medical Annals, Vol. XXXV, pp. 303-323.
B. F. Williams, M. D.: The Insanity of Adolescence. Alienist and Neurologist, Vol. XXXV, p. 414, *et. seq.*
G. R. Trowbridge, A. M., M. D.: The Insanity of Pubescence. Alienist and Neurologist, Vol. XII, pp. 341-349.
Charles W. Burr, M. D.: Adolescent Insanity and National Health. New York Medical Journal, August 21, 1913.
James C. Hassall, M. D.: Constitutional Psychopathy in Children. Alienist and Neurologist, Vol. XXXV, p. 26, *et. seq.*

THE CRIMINAL INSANE AND INSANE CRIMINALS.

By PAUL E. BOWERS,

*Medical Superintendent, Indiana Hospital for Insane Criminals,
Michigan City, Indiana.*

Hospitals for the criminal insane and insane criminals were called into existence and developed to meet the specific problem of caring for persons who were at the same time insane and criminal. Let us make a brief review of the history of the establishment of such institutions. The English Government was the first to initiate and construct a department for the care of this class of persons, and this was done by appropriating a special department at the Bedlam Asylum in 1786 for the reception and treatment of criminal lunatics. Bethlehem Hospital was converted to this use in 1815; another institution of similar character was opened at Dundrum, Ireland, in 1850; another at Perth, Scotland, in 1858, and the famous Broadmoor Hospital was founded in 1863; one was established in our own country in New York State in 1874.

In France after an unsatisfactory attempt to care for insane criminals at Bicetre, a separate wing was built for them at the Gaillon Prison. The criminal insane in Holland were isolated in the hospital of Bosmalen. Germany established psychopathic wards in the prisons at Waldheim, Halle, Hamburg and Bruchsaal.

There are two great fundamental reasons for the establishment of these institutions. The first, which is most important, is the social defence. Society must be defended against the dangerous and anti-social acts of all classes of individuals whether they be criminal, insane, feeble-minded, epileptic or otherwise mentally defective. The first great principle regulating our dealings with them must be that of social preservation. Our safety must be equally insured against the robber who would take our money or our life, or the dangerous paranoiac who kills in a wild, homicidal mania, reacting to the systematized delusions of persecution, or the mentally irresponsible imbecile who may murder a helpless infant merely to gratify his physical appetite. The second reason

for the existence of hospitals for the criminal insane is born of humanitarian impulses; for we recognize that the criminal, the insane, the epileptic and the feeble-minded owe their origin largely to the defects of the social organism. And since we are to that degree responsible, these defective, delinquent and dependent classes must share our humanity and our pity.

For the thoughtful person no lengthy arguments are needed to prove that the ordinary prison or hospital for the insane is inadequate to insure the public safety against all the dangers from the classes just mentioned.

With few exceptions our criminal courts are more concerned with the infliction of the penalties of the penal law by sending men to prison than they are in the study of the causes of crime which brought the defendants into court. Some day, when we have made sufficient advancement in our legal procedure in dealing with criminals, we will examine the individual offender in the same manner as we do an insane patient in our psychopathic hospitals. We will learn what mental or physical blight it is that nature or disease may have bequeathed him. We will seek to discover the motives and stimuli that regulate and control his conduct; and we will see the relationship of his criminality to his life history in longitudinal section.

At the present time throughout the United States hundreds of insane men are being sent to prison to be punished for acts that are purely symptomatic expressions of the unrecognized mental diseases with which they suffer; and, on the other hand, sane criminals are being sent to hospitals for the insane, because they have been skillful enough to avoid the consequences of their crimes by a successful plea of insanity at the time of their trials. Again, dangerous insane persons are released absolutely from custody by our courts because they have been found "not guilty," and because they were insane and did not therefore possess the necessary criminal intent to commit a crime. In fact, an insane murderer or rapist is more dangerous than a sane criminal of this type.

Admitting, for argument's sake, the plea of the classical school of criminology, that it is impossible for an individual to be both criminal and insane at the same time, we are confronted with the imperative necessity of recognizing that the violent madman demands special care and custody. The greatest security we have

against the acts of the dangerous insane is the doctrine of total irresponsibility in all cases of insanity. The insane person who commits murder or attempts to commit murder, reacting to delusions of persecution, should never be released from custody as long as his mental status makes him an unsafe individual to be at large. If we hold an insane individual to be responsible, or to possess an attenuated responsibility, and then send him to prison for a definite term, society is receiving but poor protection. Yet we are treating the criminally insane in this irrational manner.

There is a very current but well founded opinion that the plea of insanity has been much abused as a defense for murder and for other serious crimes. For this reason our juries often fail to acquit the insane even in those cases where the plea has been properly interposed, and the result is that the criminal insane are sent to prison for a term of years and released at the expiration of their sentences uncured and probably more anti-social than they were previous to their incarceration.

Very often it happens that an individual commits a crime during a psychotic episode of a recurrent or so-called circular form of insanity, and by the time he is brought to trial a period of lucidity has intervened and he is found to be sane at this time. Yet it would be extremely unwise to release such an individual from custody and it would not be right to commit him to a penal institution; but in accordance with the principle of justice and protection he should be confined in a hospital for the criminal insane to determine whether or not an acute exacerbation of his mental disorder is likely to occur. In one case of manic-depressive insanity that came under my observation, crimes were always committed in the manic phase of this psychosis; and they were usually ones of arson or larceny. It happened in each instance that the trial of this unfortunate occurred during the lucid interval.

The time limits of this paper admit only of a very brief discussion of the dangerous and criminal insane, and I will therefore briefly describe the three most important forms of mental alienation which often lead directly to crime; these are epilepsy, paranoia and feeble-mindedness.

Epilepsy is responsible for a vast number of pathological offences. It is very common for prison physicians to observe that many prisoners have distinct dizzy spells, and these are

many times true forms of *petit mal* which may be overlooked by a careless mental examination.

The epileptics, as a rule, are most mercurial and volatile in their temperaments; the merest trifles are sufficient to stir them to serious outbreaks of temper and violence. They are radicals of the most extreme type, and especially is this true in the sphere of religion and politics. Their manner of living and their modes of behavior are practically regulated by their appetites; they love power and notoriety, and they shrewdly use immoral and illegal methods to secure these; they are extreme sensualists and are prone to commit sexual crimes, such as rape, incest and sodomy. Delusions of persecution are common characteristics of the epileptic degeneration and therefore it is very easy to see why dangerous assaults should be so common among epileptics, with their hair-trigger temperaments, their lack of emotional control and their impetuosity.

Clouston has well said that, "Murder by an epileptic should be looked upon as being as much a symptom of his disease as is larceny by the general parietic." Delasiauve forcibly stated: "It is certain on passing an epileptic we elbow one who might be an assassin, and the epilepsy, through the delusional ideas it originates, furnishes a considerable share of the crime ascribed in mental alienation."

The phenomenon of epileptic automatism has long been observed; but a concise explanation of this phase of the disease has not as yet been offered. We know, however, that some epileptics complete certain definite acts in a seemingly perfect, conscious and coherent manner. But in reality consciousness is practically blotted out, and when the individual regains his mental status there is likely to be no memory of any of the acts that he may have committed during such period; or if he does have any memory it is usually of an indistinct hypnogogic character that closely corresponds to the dream-state.

The automatic acts of the post-epileptic stage more frequently follow the *petit mal* paroxysm and it is rare for criminal acts to be committed following a severe form of the major paroxysm. It is usually the rule that the actions which are performed in a post-epileptic automatic state are always the same in character; the act performed usually portrays in some manner an habitual

movement that is customary to be made in normal consciousness. In the consideration of epileptic criminal acts we must bear these facts in mind. If called upon to give expert testimony as to the responsibility for criminal acts that may have been performed by an epileptic in the post- or pre-epileptic automatic state we must determine if the overt act was habitual in any character or if the person was accustomed to performing similar actions when "at himself."

It would be in perfect harmony with the observations that have been made to find an epileptic butcher having assaulted another individual with a knife, and it would not be strange to find a soldier in a post-epileptic state shooting an individual. The handling of gun or knife are habitual acts of the soldier and butcher respectively; but, should a butcher kill an individual by administration of poison, we should be exceedingly slow to regard such a crime as an expression of epilepsy, since the handling of drugs is a procedure foreign to the act of cutting meat.

The condition known as psychical epilepsy is one in which the paroxysm is replaced by a nervous storm which is not accompanied by the usual signs of epilepsy. "Psychic epileptics may commit all manner of crimes; thefts, arson, rape, assaults and homicides. They are not infrequently pyromaniacs, entirely without reason, or impelled by the flimsiest motives." "The medico-legal aspects of this type of epilepsy depend, so far as responsibility is concerned, upon our ability to determine the existence of the automatic state at the given moment. This may be difficult to do beyond reasonable doubt, though if we can prove the person is a sufferer from epilepsy at the time, or ever had it in any form, we can always create a reasonable belief that the patient may have acted while in a seizure, without any intent whatever, and under conditions that should free him from responsibility."

Paranoia and allied paranoid states furnish us with a very large quota of pathological crimes. The most common of these are homicides, homicidal attempts, assault and battery, blackmail, perjury, impersonation of officers and sexual crimes. The most dangerous of all insane patients is the one who harbors in the recesses of his diseased mentality systematized delusions of persecution. This is especially true of the paranoiac, who many times appears to be intellectually normal, and who occasionally, aside

from his paranoid tendencies, may be the superior of the average individual. The proper perspectives of life are impossible for the paranoiac, since each instance and circumstance is colored and tinged by an abnormal sensibility and reaction to the most commonplace and trivial affairs.

The paranoiac in the stage of persecution, out of the most insignificant circumstances, constructs a nebula of persecutory ideas which are intangible and obscure. Finally these hazy, indistinct ideas of persecution take on a more definite character, and then, step by step, supportive and contributive ideas are formed and elaborated which build up a definite, systematized, delusional preconception or system of thought through which must pass every idea that is translated into action. This delusional formation is so closely and intimately connected with the whole of consciousness, that it regulates and dominates the individual's manner of feeling, thinking and acting. It is easy to see, therefore, that any paranoiac is a potential homicide while harboring delusions of persecution. Should he believe that his supposed enemies have designs on his life, or that they desire to make him the butt of their ridicule, or the object of some diabolical conspiracy, it is not at all strange that the persecuted should turn persecutor. He employs logical methods of argument to convince himself that he is perfectly right in seeking means to protect himself against machinations, and should he ever be called into court to explain some of his erratic behavior, he is more than convinced that he is justified in seeking any measure that he may see fit to employ.

Paranoiacs of the religious variety often come into conflict with the law directly through their insane beliefs concerning religion, and examples of religious paranoia are not uncommon. They often feel that they have been commissioned by God to deliver humanity from its sin, or to perform some other mission which the Deity may have imposed upon them, and while many of the religious mystics are extremely harmless, there are those who are decidedly dangerous to society when anyone attempts to contradict their insane ideas, for they regard such imputations as direct sacrilege and affront to Deity and may feel themselves designated to kill those who deny their religious pretensions.

The greatest causative mental factor of crime is feeble-mindedness.

Brutality and cruelty seem to be universal symptoms of imbecility. The precocious cruelty of the feeble-minded which enables them to torture animals, to cripple birds, to tear the wings and legs off insects, to laugh at the pain of others, to inflict torture with delight, forms the basis when they are physically able for assault and battery, for homicidal attempts and murder.

The easy disintegration or cleavage of consciousness which occurs so often in the feeble-minded permits violent explosions of anger against those who interfere with their pleasure. Their wrath is shown by outbursts of fury and frenzied attacks; again, it is exhibited by well calculated and cunning cruelty.

The feeble-minded, lacking in reason and judgment and devoid of all moral critique, commit all manner of sexual crimes without any feeling of restraint or shame. They masturbate openly and excessively; the imbecile father impregnates his own daughter; he may commit sodomy with his own son; or, imbeciles may attempt intercourse with their mothers and "sexual satisfaction with animals is frequently attempted. The great majority of cases of injury (sexual) to animals must be attributed to imbeciles." Many of the attempts to murder, and murder itself, committed by the mentally defective, were perpetrated when the person attacked resisted their erotic assaults.

Often they are cunning thieves; articles of small worth seem to have a great attraction for them; to satisfy their vanity, they often steal wearing apparel. They often set fire to property to appease their desire for the excitement which attends conflagrations. Many of the pyromaniacs who are a constant source of worry to the fire insurance companies are feeble-minded persons.

The following classes should be confined in the hospitals for the criminal insane. The prisoners who become insane while serving sentence in prison, the insane who commit dangerous acts and are found insane at the time of trial, those persons who commit crimes while insane but are found sane at the time of trial and in whom there is great probability of a recurrence of their insanities, the violent and dangerous patients of the ordinary hospital for the insane and the habitual and born criminals.

Careful psychiatric and psychological examination will show that about 10 per cent of the average prison population is insane. Every year hundreds of insane men are being sent to our penal

institutions to be punished for acts that are purely symptomatic expressions of their unrecognized mental diseases, and I know by personal experience that there is no essential mental disorder or anomalous psychotic state but what is represented in our prisons by mentally sick persons who have been stigmatized as criminals through the carelessness or ignorance of our courts. And I do not refer to those cases where the plea of insanity has been interposed as a defence. In the last five years five cases of general paresis have been received at the Indiana State Prison with definite prison sentences and never a serious thought had been given at the time of their trials as to the mental status of these respective lunatics. The committing of these men to prison was certainly a travesty on justice. How much more rational it would have been had a properly qualified official court alienist submitted a report to the court stating that these men were suffering from a hopeless mental malady which demanded hospital treatment instead of disgrace and punishment behind prison bars.

The individuals who apparently develop and exhibit mental disorders in our prisons as a rule belong to the class of recidivists who show marked vice of organization, inherent defects, the viciousness of evil heredity and the unrelenting results of dissipation and vicious habits. If we study their histories we will find that their lives have been one uninterrupted series of conflicts with the law and morals of society. They are morally anesthetic, brutal in their passions and indifferent to ethics. Occasionally we will find an exception to this rule, so far as intellect is concerned, but the emotional poverty in these exceptional cases is ever in evidence. The episodic, psychotic symptoms which are exhibited in prison, are but one of the kaleidoscopic pictures of their criminal constitutionality which has been their heritage, or which they have acquired by evil environments, vicious habits and low ideals during the formative period of the mind. The mental symptoms which obtain in prison are merely the evidences of underlying and grave psycho-physical pathology.

The presence of epileptics, mattoids, paranoids, paranoiacs, imbeciles and sexual perverts in our prison populations is a menace because of their dangerous tendencies and lack of capacity to adjust themselves to the environments and discipline of penal institutions. They threaten the lives of their fellow inmates and

the institutional officers and not infrequently make dangerous and vicious assaults. These persons do not belong in penal institutions, which should be relieved of their presence whenever discovered.

In distinction to the insane criminals let us briefly consider the criminal insane class which is made up of those mentally irresponsible persons who commit violent acts and whose mental defects are discovered at the time of trial. Of course, some objection has been raised to this term, as has been said before, on strictly classical grounds, in the time-worn argument that an individual cannot at the same time be criminal and insane; and if the violator of the law is insane, he should be incarcerated in a hospital for the insane, and if he is criminal, he should go to a penal institution. But there is a flaw in this argument, for it does not take into account those borderline groups of individuals whose mentalities lie in that ill-defined state where sanity shades imperceptibly into insanity, where these markings between responsibility and irresponsibility are hazy, indistinct and confused. Because of this lack of mental equipoise they are ever potential lunatics and criminals.

There are to be found in every penal institution and hospital for the insane, sexual perverts whose genital anomalies are productive of sexual crimes, as rape, incest, sadism, sodomy, necrophilia and bestiality, and these tendencies and practices not infrequently lead to murder. Not all expressions of homo-sexuality are to be regarded as evidences of insanity; yet it may be safely said that the majority of sexual perverts are psychopathic individuals. Sexual perverts of the most disgusting types are found among the psychopaths.

Whether these anomalies of the sexual instinct are always congenital or not has not been settled, and it does seem that inverse and perverse sexual habits may be acquired early in life by association with vicious and depraved individuals. The sexual perverts are at any rate an exceedingly dangerous and demoralizing class, which should be permanently isolated to prevent their mingling with others.

Sodomy is not an infrequent crime among prisoners. About 1 per cent of all admissions to this prison are for this perversion. A most constant and strict supervision is kept over the prisoners

by the prison officers to prevent this practice, and in those prisons where more than one inmate is housed in a cell extreme caution must be exercised.

The habitual criminal is more or less mentally defective. Habitual criminality may be said to be, even after the environmental influences have been considered, an expression of a condition of psycho-physical pathology, and these conditions on the whole respond but very little to treatment. When it has been found that an individual is a defective recidivist because of mental defect, he should be kept in custody until his mental status is such that he can be released with safety to himself and to the public, but his incarceration should be in a hospital rather than in a prison.

The crimes of the insane and otherwise mentally defective prisoners show an extremely high percentage of crimes against the person. The percentage for murder among the insane prisoners was three times as high among this class as among the inmates of the prison proper. For rape, sodomy and incest, it was one and one-half times greater. Among 169 insane prisoners 43 were murderers and 16 were convicted of assault and battery with intent to murder; 25 of them were convicted of burglary, and every burglar is a potential murderer; 11 were convicted of rape and attempt to rape, and 4 were convicted of sodomy.

The records of the Indiana State Prison of 2365 consecutive admissions show the following interesting percentages:

	Per cent.
Murder	5.2
Rape, incest and sodomy	6.1
Murder, manslaughter, rape	14.6
Petit and grand larceny	53.2

Of 114 mentally defective prisoners:

	Per cent.
Murder	16.6
Rape, incest and sodomy	9.8
Murder, manslaughter, rape	30.5
Petit and grand larceny	37.7

From these figures and tables we see that the majority of the crimes of the criminal insane and insane criminals is chiefly against the person. This fact is extremely pertinent and suggestive and indicates that there should be an indefinite seclusion of the individuals of these types.

The existence of a hospital for the criminal insane and insane criminals serves as a great factor to suppress the practice of malingering among sane criminals. The reason for this lies in the fact that there is no advantage to be gained by such a deception, for should a sane prisoner who is serving a definite sentence feign insanity, he would be transferred to a criminal asylum where it is likely he would remain very much longer in confinement than he would in the prison, and this uncertainty of release detracts materially from the temptations to simulate. In those states where there are hospitals for insane criminals, malingering is becoming very much less frequent than formerly. In the majority of the states where no specific effort has been made to care for the criminal insane, other than transfer to the ordinary hospitals, simulation of insanity is quite common and transfer to such institutions is often followed by prompt cure or elopement.

The ordinary hospitals for the civil insane are not so constructed or administered as to safely care for the criminal insane or the criminal malingerers. The hospitals for the criminal insane should be well built and the windows and doors should be so constructed as to prevent escape. The institution should be surrounded by a wall to prevent elopement. The attendants should have had experience as prison guards in order that they may know the character of their wards. The discipline of such institutions should be firm and strict but kind and humane.

The mental diseases of insane criminals and criminal insane are generally of a chronic, degenerative type with a paranoid coloring, and for this reason the percentage of recoveries is very much smaller than in ordinary hospitals for the insane. In the course of time these two classes which have been described in this paper will be recognized as distinct defective types who, for the social defence and their own welfare, will receive treatment in special institutions, and this practice will become general.



OBSERVATIONS ON CRANIAL ASYMMETRY.*

By HERMAN M. ADLER, M. D.,

*State Criminologist and Director, Juvenile Psychopathic Institute,
Chicago, Ill.*

In 1909, when the writer assumed his duties as pathologist and assistant physician at the Danvers State Hospital, he was struck by a seeming coincidence in the appearance of the patients that were presented at the daily staff meetings. It seemed to him then that almost every patient presented had a marked facial asymmetry, most noticeable in the relation of the horizontal plane of the two eyes to the vertical plane of the head. This observation was the basis of an investigation which has been conducted during the past five years. The present communication is a brief report of the results of a part of this investigation.

When one mentions the word "asymmetry" to the average psychiatrist, his reaction usually is that of scepticism. He says, "Is not everybody asymmetric? Is it not normal to be asymmetric? Is it conceivable that the two sides of the face should be absolutely symmetrical?" and so on.

In reply to this one must obviously agree. It is normal to be asymmetric, and nature is not so accurate a workman as to produce many individuals in whom perfect symmetry exists. When investigation is directed to the cranium as well as to the face, it appears that it is physiological to have an asymmetric skull.

As the word is used in this communication, however, it signifies a severe degree of asymmetry. Just where the dividing line should be between normal and abnormal asymmetry, is not known, any more than where the dividing line lies between normal mental function and abnormal mental function. In specific borderline cases, there would be difficulty in determining this, but in extreme cases, in which marked differences between the two sides of the face and cranium are observed, the fact that asymmetry exists is obvious to the eye.

In this investigation, I have considered cases which have shown a difference in height of the two eyes of over 3 mm. compared to a perpendicular drawn through the median plane of the skull. A

* A contribution to the William Leonard Worcester Memorial Series of Danvers State Hospital papers, presented November 19, 1915.

number of measurements of the face were made which included the following points: A perpendicular line drawn from the root of the nose to the tip of the chin, a line from the tip of the chin to the outer canthus of each eye, with that of the other eye, and a line from the outer canthus of each eye to the root of the nose. These measurements were plotted, and the outer canthus of each eye was then fixed by a double measurement, which had to check exactly.

In difficult cases, or where there was a suspicion that the median line of the skull did not form a straight line, another measurement was taken from the outer canthus of each eye to the point of attachment of the nasal septum to the upper lip. In most of the cases so measured, it was found that divergencies of one or two mm. from the horizontal are instantly noted by the eye, so that having established this point, the exact measurement of this asymmetry was omitted, and it was decided to note as asymmetrical only those cases which instantly appeared to the eye as asymmetric, and to note as not asymmetric, all cases that appeared not markedly asymmetric, so that the results here stated are to be considered as conservative rather than extreme estimates.

It is, of course, desirable that some method be employed which will permit of a permanent record being made. The only practicable method at present at hand, is that of obtaining a reduced outline of the shape of the head by means of a "conformateur," such as is used by hatters in fitting men's hats. With this apparatus certain interesting outlines have been obtained. The accompanying illustrations show the appearance of the outlines so made. It will be noted that these tracings are made by connecting the points where the arms of the conformateur puncture the paper. The resulting outline is, of course, greatly reduced. In practice, among hatters, this tracing is cut out of stiff paper and then inserted in a blocking apparatus which projects the variations to the natural size.

These outlines show distinctly certain asymmetries, and show a flattening and receding of the skull on the retarded side. They also show a noteworthy prominence in the parietal region, usually on the right side. It has been found that this corresponds to right-handedness, that in cases where a person is not right-handed, this prominence is absent. In those cases of so-called left-handedness examined, little difference was found between the two parietal

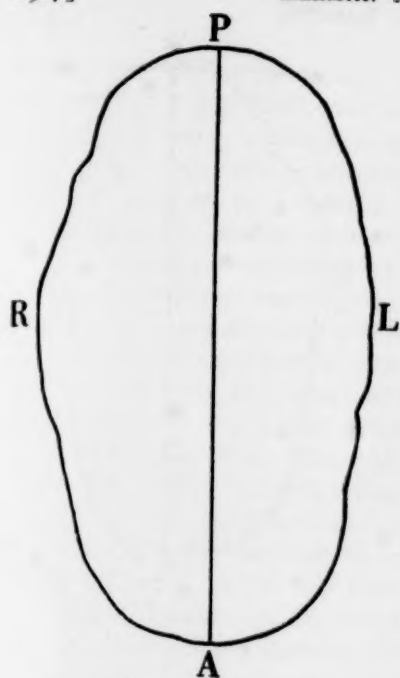


FIG. 1.

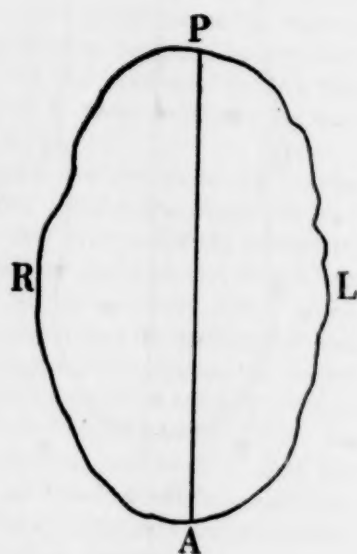


FIG. 2.

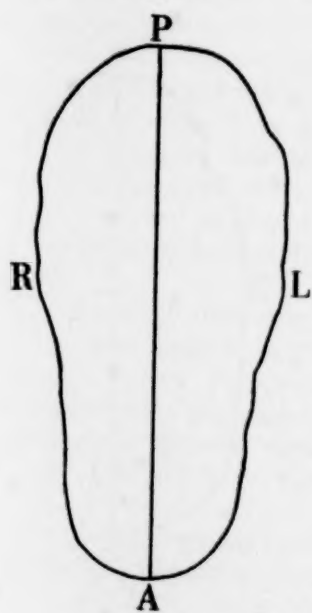


FIG. 3.

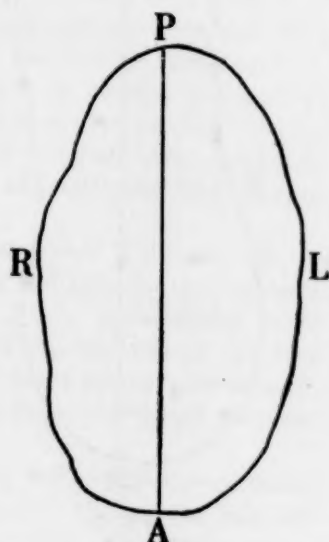


FIG. 4.

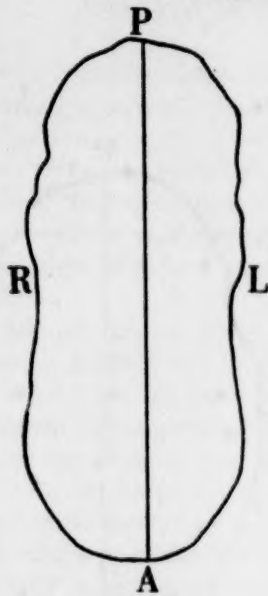


FIG. 5.

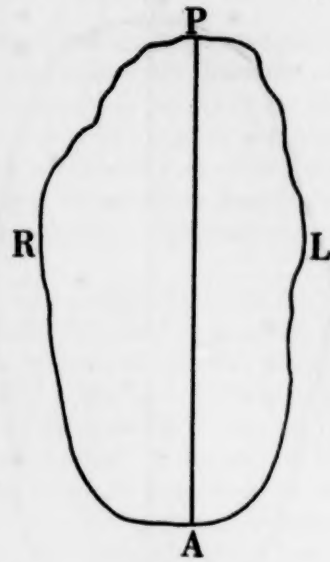


FIG. 6.



FIG. 7.

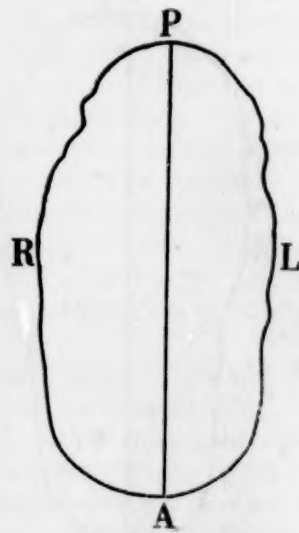


FIG. 8.

regions with the *conformateur*. This may possibly indicate that the individuals examined were not truly left-handed, but were, correctly speaking, ambidextrous. The attention of the author was called to this point by studying the tracings, and he has since made observations by inspection and has been able to pick out the so-called left-handed people from a crowd by observing that the right parietal prominence was lacking.

The *conformateur* has certain defects which make the results obtained by its use not very accurate. In the first place, the construction of the apparatus is such that great accuracy cannot be expected from it. It is made of flimsy material and the points which perforate the paper move in loose tracks which allow considerable side play. There is also a certain amount of lost motion due to the fact that the spring which actuates the points is a long spiral, which is not always of uniform tension, so that an occasional point may not be applied closely to the head. In the second place, it has this fundamental drawback in that the construction is such that the sticks of wood which fit against the head, and to which the marking points are attached, are perpendiculars and therefore represent the widest diameters of the skull, and not necessarily points in the same plane. Before any very accurate topographic work can be done, it is necessary to correct these two errors in this mechanism. The writer is at present at work on an apparatus which it is hoped will overcome this difficulty. It should here also be pointed out that the X-ray offers a means of investigating this subject, but on account of technical difficulties not very satisfactory results have been obtained to date.

A census was taken of all the patients and most of the employees at the Danvers State Hospital during one week, with the following results:

A total number of 1000 cases was observed. Of these, 281, or 28 per cent, were found to have no marked asymmetry; 719 were found with marked asymmetries. These asymmetries were divided as follows: 403 cases showed the left side of the face apparently larger than the right; 305 cases showed the reverse, namely, the right side of the face was apparently larger than the left.

Eighty-six employees were examined, and only five were found to be markedly asymmetric. Of these, four showed the left side of the face apparently larger than the right. The employees in-

cluded mechanics, nurses and attendants. The four asymmetries were noted among the male attendants, one among the mechanics.

CRANIAL MEASUREMENTS.

FEMALE PATIENTS.				
Diagnosis.	No asymmetry.	Left-sided asymmetry.	Right-sided asymmetry.	Atypical asymmetry.
Toxic psychosis	1	..	1	..
Alcoholism	10	13	8	1
Alcoholic hallucinosis	1	1	..	..
Korsakow's psychosis	4	1	..	..
Involution psychosis .....	..	1	2	..
Presenile	3	3	1	..
Senile	8	5	8	..
Arteriosclerosis	10	..	2	..
Organic	9	4	3	1
Epilepsy	1	2	1	..
Dementia præcox	39	173	117	2
Manic-depressive insanity.	16	21	15	2
General paresis	4	3	2	..
Paranoia .....	..	..	2	..
Hysteria	1	..	..	..
Psychopathic personality..	2	..	..	..
Imbecile	10	21	13	..
Unclassified	22	78	53	1

CRANIAL MEASUREMENTS.

MALE PATIENTS.				
Diagnosis.	No asymmetry.	Left-sided asymmetry.	Right-sided asymmetry.	Atypical asymmetry .
Alcoholism	21	9	2	..
Morphinism	2	..	..	..
Korsakow's psychosis ....	..	1	2	..
Senile	2	1	3	..
Arteriosclerosis	3	3	3	..
Brain tumor .....	..	1	..	..
Organic	6	5	5	..
Epilepsy	6	1	..	..
Huntington's chorea	1	..	1	..
Dementia præcox	43	31	31	..
Manic-depressive insanity.	19	7	7	1
General paresis	8	6	9	..
Cerebrospinal syphilis	1	..	2	..
Tabes	1	..	..	..
Paranoia	1	1	..	..
Neurasthenia	1	..	..	..
Imbecile	7	9	3	2
Unclassified	18	2	9	1

The text-books contain statements of which the following quotation from Church and Peterson's book on Nervous and Mental Diseases, published in 1911, is an example:

Inequality of the two sides of the face—when congenital and not due to some such disease as hemiatrophy—is to be looked upon as a stigma of degeneration.

In the same category may be grouped the various books which go on to point out the well-known stigmata of degeneration, such as deformities of the palate, the anomalies of the nose and eye and ear, and so on. Kraepelin¹ points out that most of these stigmata of degeneration are to be used as evidence of psychopathic disposition with the greatest caution.

It is clear, however, that a change in conformation, or a variance from the normal, is of quite different value and significance in, say, the liver or the brain. The brain is an organ which is preëminently characterized by the location and specific function of its individual cells. Since the brain is not a single organ, like the liver or the kidney, in which a cell at any one point performs the identical function of every other cell in the organ, but rather has the properties of a group of separate organs, some greater, some smaller in size, all of them consisting of cells with individual functions, even slight variations in volume of the functioning portion acquire a significance. Thus, in the liver, a change in the volume of the functioning cells means a greater or less capacity for the production of the specific secretions of the liver, but whatever the total quantity, a large number of cells could be destroyed without appreciably interfering with the work of the liver as a whole, and without becoming noticeable in any way. If the reserve force of the liver tended to be exhausted even, the other cells would merely increase their activity, and the total result would not be changed. In the brain this is quite different. One nerve cell cannot be substituted for another cell. If a nerve cell is thrown out of function, a definite loss of total function is the result. It follows from this that the size and complexity of the functioning portion of the brain, namely, the cortex, are of importance in estimating the potential ability of the brain. It does not, of course, in any way predicate the functional activity, which is another matter.

While these principles are well recognized by anatomists, it has always been deemed unwise to lay too much stress upon outward indications of the size of the brain in the living. Rieger,^{*} in 1885, showed that it was possible to estimate the contour of the brain fairly accurately by measurements upon the skull or upon the cranium of the living individual. Even if these measurements are comparatively accurate, they are only approximate, and too much reliance should not be placed upon them, since there is a well-known discrepancy between the external contour of the skull and the surface of the brain.

Virchow^{*} has shown that the development of the skull follows closely the development of the brain, and that it originates in three embryonic centers of ossification, two of which are in the sphenoid bone, and one in the occiput, all three arranged in a line running antero-posteriorly through the center of the base of the cranium, and representing the bodies of the vertebrae from which these bones are developed. The skull and face develop from these centers as the petals of a flower develop from its center, and Virchow has shown how a very slight disturbance in the ossification centers will be magnified on the periphery so it will appear as a marked anomaly in the vault of the cranium, although the actual deviation is very small at the center.

Thoma^{*} has shown recently that the structure of the bones is dependent not upon an underlying pre-arrangement whereby the bones are adapted to the strain that they will be subjected to, but rather that the structure of the bone depends upon the lines of force exerted upon them, and if these lines of force are changed, as by the transplantation of muscles, for instance, the structure of the bone changes in a corresponding fashion. So in the long bones such as the femur, the lamellæ, which have long been pointed out as instances of good engineering principles, will become re-arranged if the lines of force are applied in a different way, the bone being dissolved and laid down in new locations. The same has been shown to be true in the skull. It is well known how a slowly growing tumor will either perforate the vault of the cranium or will cause a bulging of the bony walls. Cushing has shown how tumors of the pituitary gland will cause a cranial and facial asymmetry by their pressure on the sella turcica, which is located at the radial center of the skull.

All these investigations go to show that contrary to what has been held by some anthropologists and criminologists, the asymmetries of the cranial vault are probably not due to premature closures of sutures, but rather to an arrest in the development of the soft parts within; that the premature closure of the sutures is probably secondary, therefore, and not primary.

The pictures (Plates I and II, Figs. 1, 2, 3) represent an asymmetric skull from a patient who had an extreme facial and cranial asymmetry. In this case, it was the right eye which appeared higher than the left. It will be seen from the photograph that the right side of the head, contrary to external appearance, was not larger but smaller than the left, and that in this particular case this asymmetry extended through the entire right side of the cranium. On account of the fact that the eye appears higher on that side of the cranium which is in reality smaller in volume, the face may appear larger on that side, and thus one may be misled into thinking that the affected side is the opposite one.

During development, the frontal region develops in a forward direction, so that the chin becomes relatively less prominent till finally the frontal region of the cranium dominates the face. The eyes and especially the super-ocular regions are thus pushed downward in relation to the chin by the development of the frontal region. If one side is arrested in development before the opposite side, the latter will push on and thus the eye on that side will be placed somewhat lower than the eye on the earlier arrested side. At present, the methods do not suffice adequately to demonstrate with any certainty the asymmetries in the temporal or the middle or posterior fossæ, so that the remarks here made apply in the main to the frontal region.

The asymmetry thus explained means therefore not necessarily inadequacy of development, but means inequality in development. If the individual is of only average intelligence and average ability it is likely that this arrested development signifies a certain degree of degeneracy in that we may assume that the larger hemisphere represents merely average intelligence. The one showing arrested development would therefore fall below the average. In cases of unusual intelligence, of genius, such asymmetries have frequently been noted, and it may be assumed that in these cases the lesser half was at least normally developed,

and the opposite side is hypertrophied. Of course, at present, it is impossible to make definite correlations of this sort, and these statements have been made merely to point out the possible connection between such asymmetries and functional power.

One thing seems, however, to be probably true; namely, that asymmetry in any case indicates a tendency to psychopathy. According to this conception, therefore, the inequality of development of the brain probably indicates a weakness of one side as compared to the other. This weakness need not necessarily be effective at all times, but merely latent and brought out under certain changed conditions.

A casual examination of groups of men met with in various places where a sufficient scrutiny could be applied, such as a student body in a university, the pupils of a large boys' school, and so on, as well as the photographs in the rogues' gallery of the Boston police, the portraits of noted criminals, and the patients that come before the examiners at the Psychopathic Hospital, leads the writer to the conviction that asymmetry indicates a variation from type either in the direction of defect or in the direction of genius.

It is not astonishing that marked asymmetry in criminals has attracted the attention of so keen an observer as Professor Roscoe Pound, Dean of the Harvard Law School, who informed the writer that his attention had been forcibly arrested by the very marked facial asymmetry which he observed in portraits of noted criminals, and in a number of criminals whom he had seen.

Marked asymmetry is a constant phenomena in insane hospitals and in the criminal courts. The writer has seen no cases of dementia præcox, with the exception of simplex or catatonic groups, who have not shown marked cranial asymmetry. The paranoid psychoses, in the experience of the writer, practically always are associated with a well-marked cranial asymmetry. On the other hand, in the schools and the universities where observations were made, asymmetries appear to occur, but are the exception, and are usually indicative of unusual ability or talent in some particular direction.



FIG. 1.—The floor of cranial cavity showing asymmetry. The frontal and temporal fossae are shown distinctly. The frontal region on the right side is flatter than on the left. The right anterior fossa is clearly seen to be smaller than the left. The right middle or temporal fossa is likewise much smaller than the left. The posterior fossa and the occipital region cannot be seen distinctly on account of curvature of the occipital lobe.



FIG. 2.—The same skull as Fig. 1, so placed that the posterior fossae are in focus. The head has not been moved laterally. It will be seen that the right side here also is much smaller than the left.



FIG. 3.—The same skull with the calvarium replaced, the scalp turned back. It is almost impossible, even on close scrutiny, to observe any great difference between the two sides, although by comparing it with Fig. 1 it will be seen that it exists.

This shows how difficult it is at times to determine from inspection of the vault of the cranium whether a marked asymmetry exists or not. In this instance, the right side of the face seemed larger than the left.

CONFORMATEUR TRACINGS.*

NORMAL INDIVIDUALS.

No. 1. The head of an unusually intelligent and successful physician. Well-rounded frontal region, symmetrical, showing the usual parietal prominence on the right side. Right-handed.

No. 2. A Harvard professor. Very slight left-sided frontal defect. Slight apparent right parietal prominence. Called left-handed, probably ambidextrous.

No. 3. Young physician, successful. Slight left frontal defect. No marked difference in parietal region. No marked prominence on left parietal. Called left-handed, probably ambidextrous.

No. 4. Normal, healthy individual. Professor of music. Very slight left frontal defect. Well-marked left parietal prominence. Left-handed, probably true left-handedness.

ABNORMAL INDIVIDUALS.

No. 5. Marked left frontal defect. Slight right parietal prominence. Right-handed. Dementia præcox.

No. 6. Marked left frontal defect. Marked parietal prominence. Marked occipital defect. Right-handed. Dementia præcox.

No. 7. Marked left frontal defect. Marked left parietal prominence. Marked right occipital defect. Right-handed. Dementia præcox.

No. 8. Marked left frontal defect. Marked right parietal prominence. Slight right occipital defect. Dementia præcox.

REFERENCES.

1. Kraepelin: *Psychiatrie*, I, 8th edition, p. 465.
2. Rieger, Konrad: *Eine Exakte Methode der Craniographie*, 1885.
3. Virchow: *Untersuchungen über die Entwicklung des Schadelgrundes im gesunden und krankhaften Zustande und über den Einfluss derselben auf Schadelform, Gesichtsbildung und Gehirnbau*. 2 p. 1, 128 pp., 6 pl. fol., Berlin, G. Reimer, 1857.
4. Thoma, R.: *Untersuchungen über das Schadelwachstum und seine Störungen*. *Virchow's Archiv für Pathologische Anatomie und Physiologie und für klinische Medizin*, 1911.

* In all the conformateur tracings, a straight line has been drawn through the middle of the outline connecting the middle points in the anterior and posterior regions. In the asymmetric cases this line, to represent the median line of the skull, should probably be a curved rather than a straight line, but on account of absence of accurate data it is impossible to construct such a curve. The incidence of this line, nevertheless, gives a very definite idea as to the degree of asymmetry, if the abnormal cases are compared with the normal.

Notes and Comment.

SEVENTY-THIRD ANNUAL MEETING OF THE AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION.—The meeting of the Association, which was held at the Hotel Astor the last three days of May and the first of June, was in all respects a very satisfactory one. The city of New York is within easy reach of a large number of institutions and from them came many members who would not have been present at a meeting at a more remote place.

Then the metropolis has many and varied attractions of its own to lure men from professional offices and hospital wards, so that the number of members in attendance was larger we believe than at any recent meeting.

The address of the President was, as would have been expected, equal to the occasion and that of Professor Conklin on Wednesday evening easily attained the high standard established by several of the recent annual addresses before the Association. The program was an unusually full one and the President so guided the reading of papers and the discussions that there were few unoccupied moments during any of the sessions.

The Association took prompt and efficient action upon resolutions, which were introduced, pledging the aid of its members to the government in the conflict upon which the United States has entered in support of the Allies in the European war.

The need of trained psychiatrists in the recruiting service, in the examination of men drafted into the ranks, as well as in base hospitals or at the front is a crying one and it is to be hoped that from our membership a large number can be secured.

It is announced that the authorities in Washington will not accept the services of any medical man who is not willing to become a member of the Medical Enlisted Reserve Corps. Applications for service in this Corps, who wish to confine their work to psychiatric or neurologic cases should be made to the National Committee of Mental Hygiene, 50 Union Square, New York. The Surgeon General has entrusted to this Committee the task of organizing Psychiatric Units to be attached to base hospitals.

A committee was appointed with one member from each state having members in the Association, with Dr. C. B. Burr of Flint, Michigan, as chairman, to make a canvass of each state for physicians of psychiatric training who will join the Medical Reserve Corps for service in the psychiatric units.

We regret that owing to the late date at which the meeting was held we are unable to print the "Proceedings" in the July number of the JOURNAL as has been the custom from some years.

The Committee of Arrangements had provided not only for the success of the meetings, by arranging for a meeting room remote from the noises of the street, but also for the entertainment and general comfort of those in attendance. The original chairman, the late Dr. Mabon, who had done much preliminary work for the meeting, was missed by all, but his duties were well carried on by Dr. C. F. MacDonald. No notice of the meeting would be complete which did not refer to the very graceful and, when one recognizes what lay behind his concluding sentences, touching remarks of Dr. Anglin, of St. John, New Brunswick, the president-elect on assuming the chair. He said in part:

I do not expect to occupy fully my predecessor's shoes but I shall do my best to keep up the pace set. We cannot mark time. No matter what other business may be abandoned in these troublous times the unfortunates entrusted to our care must not be neglected, not only for their own good but that of the community. The Canadian Military Act grasps this when it exempts from military duties the staffs of institutions for the insane.

Unworthy as I am to occupy this, the most exalted position in your gift, I appreciate more than words can convey the honor conferred on me and on my country.

Now that this great Union has entered into the conflict to preserve civilization, it seems more than a coincident compliment that one who owes allegiance to the flag that has braved the battle and the breeze for centuries should be acclaimed president of this Association, beneath the folds of that younger banner which has ever been unfurled in service to mankind.

While here we have witnessed the observance of your Decoration Day. Your sister country to the north must soon institute hers. The cream of our youth are spending themselves for us on foreign soil.

In the past we have been wont to speak of worthy sons of worthy sires. We must reverse that now. Our boys are falling for us like heroes even as we speak. The greatest inspiration in life to better things comes to us from the supreme sacrifices they are making on behalf of all that they hold dear.

May we prove worthy!

I would suggest that we all join in singing "America."

Dr. Anglin has had for some time three sons in the service, and, but a few weeks before the meeting, one of his sons Lieutenant G. L. Anglin was killed while leading his men at Vimy Ridge, where the Canadian troops did such noteworthy service. Lieutenant Anglin, who was but 20, left Canada for the front as a Sergeant, and after twice refusing a commission because he thought himself too young was finally commissioned on the field, just before the engagement in which he lost his life. Another son of Dr. Anglin, Captain Gerald Anglin has been wounded, and has won the military cross for distinguished bravery. He has just returned to the firing line, and a third son Lieutenant Arthur I. Anglin has been transferred to Canada to train a draft of artillery recruits at McGill University, Montreal.

We are sure that the most profound sympathy goes out to Dr. Anglin and his wife in their great loss, as well as the most profound admiration for the great sacrifice which they have made to the cause of human liberty and human justice.

THE NATIONAL SOCIETY FOR THE PROMOTION OF OCCUPATIONAL THERAPY.—During March of the present year there was incorporated at Clifton Springs, New York, a society with the above title which sufficiently indicates its purposes without necessitating any explanation, but we learn from the *Maryland Psychiatric Quarterly* that Consolation House at Clifton Springs has been chosen as official headquarters and that here will be kept a bibliography of occupational therapy which will be broad in its scope and will include everything written on occupational therapy as applied to the insane, nervous, feeble-minded, tuberculous, blind, crippled, cardiac, etc.; in fact, will be as broad in scope as possible. It is requested that all who are desirous of adding to the efficiency of this society should send any books, reprints, references, etc., to the President, Consolation House, Clifton Springs, New York.

Any one who has browsed through a file of the *JOURNAL OF INSANITY* will probably be able to recall a number of papers on the subject of labor, or moral treatment of the insane, as the subject of diversional occupation was called in other days. The views of many of these older writers were very similar to those advanced at the present time. In a paper in the June number of *The Modern Hospital*, Dr. W. R. Dunton quotes from a number of these, and

quite correctly states that there are many more to which he has been unable to refer in a short paper. He also has said that many quite valuable references to occupational therapy have been buried in hospital reports. It is doubtful if there are many complete files of reports of any of the older hospitals in existence outside of the particular hospital whose events they chronicle, and probably a number of hospitals lack a complete file of their own reports. It would be an excellent piece of work if an individual in each hospital, possibly the librarian or a convalescent patient, would go over the reports and copy out all references to the subject and send this copy to Consolation House, as it is desired "to make the headquarters of the society a clearing-house upon the subject of occupational therapy."

The society also desires to bring into contact those desiring teachers or directors and those desiring positions as such. We believe that this will prove a valuable function, although at present the demand for teachers has exceeded the supply.

International relations have not been forgotten and Mr. Thomas B. Kidner, Vocational Secretary of the Canadian Military Hospitals Commission, has been appointed Chairman of an international committee. The work of re-educating the war cripple has been forced upon all of the warring countries, and already in the United States preparations are being made for this very important matter. We are borrowing a leaf from Canada's experience and are trying to prepare for what we know must inevitably occur unless the war should end much sooner than is anticipated. Even should that much to be desired event occur there would still seem much to be done, for it has been stated by Mr. Frank B. Gilbreth, the efficiency expert, that even in Canada the number of industrial cripples is greater than that of war cripples. In this country there have been comparatively few places outside of institutions where cripples could be taught new occupations. The House of Hope in New York has been given up. The Brearley League in the same city is doing splendid work in training crippled and deformed children to become embroidery or jewelry workers; as also is the Employment Bureau for Cripples. The Sharon Shop is helping cardiacs to be at least partially self-supporting by basketry and cement work. The New York Committee for the Care of the Jewish Tuberculous conducts a shop where con-

valescent cases put in from two to eight hours daily working on garments, so continuing their normal occupations. The Illinois Society for Mental Hygiene conducts an excellent station for the re-education of discharged mental cases. It will be noted that most of these re-educational centers are in New York and that none with the exception of the New York Employment Bureau for Cripples and the Brearley League are for the re-education of the crippled. There should be more centers and in more widely distributed localities. Of course, the institutions do valuable re-educational work, but in the majority of cases their benefits are limited to their own patients. It might be possible to extend the usefulness of these.

From the foregoing it may be inferred that there are many problems connected with occupational therapy, and we believe that a society having for its object the closer association of those interested in the subject with a consequent earlier solution of its many problems is deserving of support and encouragement. The JOURNAL may be looked upon as one of the oldest advocates of work therapy and as such bids the National Society for the Promotion of Occupational Therapy Godspeed.

The officers of the society are: President, Mr. George Edward Barton, A. I. A.; Vice-President, Mrs. Eleanor Clarke Slagle; Treasurer, Dr. W. R. Dunton, Jr.; and Secretary, Miss Isabel G. Newton.

PSYCHOLOGISTS AND THE DIAGNOSIS AND TREATMENT OF ABNORMAL MENTAL STATES.—We have received from the secretary of the New York Psychiatric Society, Dr. Chas. J. Lambert, the following report of action taken by that society upon the activities of psychologists in fields which certainly seem to require the exercise of medical training and clinical experience:

At a meeting of the New York Psychiatric Society held December 6, 1916, a committee was appointed to inquire into the activities of psychologists and more particularly of those who have termed themselves "clinical psychologists" in relation to the diagnosis and treatment of abnormal conditions. This committee desires to make the following report:

We have been greatly impressed by the earnestness and success with which psychologists are endeavoring to make their science serviceable in dealing with the practical affairs of every-day life. We wish to record our belief in the wide usefulness of the application of psychological knowledge

and of the findings of certain psychological tests in such fields as the modification of educational methods with reference to individual differences, the vocational problems presented in various special industrial operations, the development of scientific methods in advertising, salesmanship and other means of business appeal, and in the investigation of such special problems as the relation of environmental factors to the quality and quantity of the output of the individual. We feel that the results to be attained in these fields justify the belief that the widening of the scope and application of psychological knowledge will make psychology one of the most useful of the social sciences, instead of a narrow field for study and research with but little actual contact with the practical problem of life.

We have observed with much distrust, however, the growing tendency of some psychologists, most often, unfortunately, those with the least amount of scientific training, to deal with the problem of diagnosis, social management and institutional disposal of persons suffering from abnormal conditions. We recognize the great value of mental tests in determining many questions which arise in dealing with such patients but we have observed that most of such work is being done by psychologists and particularly by persons whose training in psychology is confined entirely to learning how to apply a few sets of these tests, is carried on in schools, courts, correctional institutions and so-called "psychological clinics," quite independently of medically trained workers who are competent to deal with questions involving the whole mental and physical life of the individual.

We believe that the scientific value of work done under such conditions is much less than when carried on in close cooperation with that of physicians and that serious disadvantages to patients suffering from mental disorders and to the community are likely to result and, in many instances which have come to our attention, have resulted. This is especially true when the mental condition of the patients examined involves questions of diagnosis, loss of liberty or educational issues more serious than redistribution of pupils or rearrangement of courses of study. In spite of these facts two states have enacted laws permitting judges to commit mentally defective persons to institutions upon the so-called expert testimony of "clinical psychologists" regarding the abnormal mental conditions from which patients are alleged to suffer. We believe that the examination upon which a sick person is involuntarily committed to permanent institutional custody is one of the most serious responsibilities assumed by physicians, and that in no case whatever should it be entrusted to persons without training enabling them to take into consideration all the medical factors involved. The same is true of mental examinations of juvenile delinquents and criminals whose whole careers depend, in many cases, upon the determination of their condition.

We desire to make the following specific recommendations:

1. We recommend that the New York Psychiatric Society affirm the general principal that the sick, whether in mind or body, should be cared for only by those with medical training who are authorized by the state to assume the responsibility of diagnosis and treatment.

2. We recommend that the Society express its disapproval and urge upon thoughtful psychologists and the medical profession in general an expression of disapproval of the application of psychology to responsible clinical work except when made by or under the direct supervision of physicians qualified to deal with abnormal mental conditions.

3. We recommend that the Society disapprove of psychologists (or of those who claim to be psychologists as a result of their ability to apply any set of psychological tests) undertaking to pass judgment upon the mental condition of sick, defective or otherwise abnormal persons when such findings involve questions of diagnosis, or affect the future care and career of such persons.

CHARLES L. DANA, *Chairman*,
ADOLF MEYER,
THOMAS W. SALMON.

These resolutions were adopted and together with the report ordered published.

RESIGNATION OF DR. BANCROFT.—Dr. Charles P. Bancroft, superintendent of the New Hampshire State Hospital for the Insane, has resigned his resignation to take effect July 1, 1917.

The following is taken from his letter of resignation:

On the first day of April, 1882, I was appointed superintendent of the New Hampshire State Hospital. On April 1, 1917, I completed 35 years of official service in this position. It is my desire to be relieved from the arduous duties incident to the superintendency. In tendering my resignation I may be pardoned for alluding to the deep personal interest attaching to my connection with the state hospital. In the first place, at the solicitation of the trustees, I was invited, while a practitioner in Boston, to succeed to the superintendency of my father, who had through 25 years of faithful, intensive service brought the institution to a high degree of efficiency. This fact became a stimulus and an inspiration.

During the 35 years that have elapsed since my appointment, the institution has grown from a population of 265 patients to a household of over 1200 patients. In this period state care of the insane has been established and all modern agencies for the treatment of mental diseases have been adopted.

The splendid cooperation of boards of trustees selected from the finest men in the state has been a large contributory factor in raising the hospital to a high standard of usefulness and efficiency. My long association with these men has been to me an inspiration, and has become one of the pleasantest memories of my life. With their support I have been enabled to labor disinterestedly for the material growth of this great charity.

You will pardon me for these personal allusions. My only apology is the deep, vital interest that always must exist between a man and his life work. I would like to tender my resignation, to take effect July 1, 1917,

and in retiring from office I trust and sincerely believe that the state hospital will in the years to come maintain the same high ideals and efficiency in the future as in the past, through the wisdom and far-sightedness of its governing board of managers.

An attempt, wholly for political purposes was made late in 1914 to turn Dr. Bancroft out of the position he has so well filled—and on December 31 he was deposed. A new Board of Control and a new Governor early in the following year reinstated the doctor to the great satisfaction of the people of the state and of Dr. Bancroft's many friends in the profession.

He has now after thirty-five years of faithful and arduous service decided to retire. He carries with him the respect and best wishes of the community which he has so long served, and we beg to extend to him our felicitations and our wishes for many years of quiet work in the line which he has chosen. We copy from the *Independent Statement* a daily paper of Concord N. H., the following graceful tribute to Dr. Bancroft and the work which he and his father have done for the state:

The acceptance of the resignation of Doctor Charles P. Bancroft as superintendent of the New Hampshire State Hospital for the Insane brings to an end a record of public service by father and son which is without parallel in this state and which has not been often equalled, we believe, in this country.

New Hampshire ranks high among the states for the efficient, intelligent and humane manner in which she cares for her insane and the credit for the position she thus holds is very largely due to the Doctors Bancroft. Their work has been done with such quiet efficiency that both its extent and its quality has not been appreciated so fully here at home as among alienists of repute and others qualified to judge throughout this country.

The New Hampshire State Hospital is the largest of our state institutions. None has a more difficult and important work to do and none does it better. That its standard in this respect may be continued by Doctor Bancroft's successor is the best and only wish we need make for him, whoever he may be. And for Doctor Bancroft himself we wish merely that the work he has done in the past may have full appreciation at its real value and that his usefulness as a highly qualified expert in mental diseases may continue for many years in the wider field which his retirement from his state position will allow him to enter.

PSYCHIATRISTS AND NEUROLOGISTS IN THE ARMY MEDICAL SERVICE.—The American Medico-Psychological Association and the American Neurological Association at their recent annual meet-

ings recognized the necessity for trained psychiatrists and neurologists in the Army Medical Service and took steps to place their membership and resources as far as possible, and in consonance with the regulations of the service, at the disposal of the Surgeons General of Army and Navy.

There is always a tendency in times like the present for an overflow of enthusiasm and the bringing forward of hastily considered, often unworkable though well-meant plans. With the well-known tendency in this country to form associations and committees and societies, with various purposes, it is not surprising that there have sprung up all over the country innumerable organizations, most of them inspired by a spirit of intense patriotism, some few by a desire to keep in the limelight, formed for the purpose of helping the government in the stupendous task which confronts it.

The two special medical organizations which at their recent meetings took steps to aid in the medical service, very wisely took advantage of the work already done and the experience gained by another body, the National Committee for Mental Hygiene, and resolved to work in coöperation with it and its special committee. By request of Surgeon General Gorgas, of the Army, a committee from the National Committee, consisting of Dr. Pearce Bailey, Dr. Thomas W. Salmon and Dr. Stewart Paton, has assumed the duty of forming and organizing psychiatric units for the government. These units will be attached to base hospitals whether at home or abroad, whether near the fighting line or in concentration or training camps and form integral parts of such hospitals. They "will receive not only frank mental and nervous cases, but cases for observation. The psychiatrists and neurologists attached to these units will be medical officers in the Medical Officers Reserve Corps. They will aid also in making mental examination of recruits as cases are referred to them."

Dr. Bailey, the chairman of this committee, has recently been commissioned Major in the Medical Officers Reserve Corps and is now in Washington on duty in the Surgeon General's office as advisor to the Surgeon General in all matters pertaining to psychiatric and neurologic service in the army.

Dr. Salmon has been for some weeks in Europe studying conditions in base hospitals and at the front, and will be in position to advise the army medical department of the experience abroad

and of the problems which may be expected to confront the medical service. As we have pointed out elsewhere, physicians of training and experience in psychiatry and neurology who are able and willing to enter the service for special medical work in these departments of medicine, should make their applications through the National Committee for Mental Hygiene, 50 Union Square, New York. In no other way will their application for special service be received or recognized. It is not at all improbable that as time passes, and cases of mental and nervous disorder come under care at the psychiatric units connected with army hospitals, it will be found desirable or necessary to transfer certain cases to other institutions. Then and then only will it be possible for the department to recognize the numerous offers of buildings and other accommodations which have been made. It is not improbable that when that time comes many physicians in psychiatric or neurologic practice who do not feel able for various reasons to offer themselves for services at base hospitals, may find an opportunity for work in places nearer home. It must be borne in mind however that these places will be under army discipline and control and that service therein can only be undertaken upon terms which the army medical department may formulate.

The announcement therefore of plans of service at hospitals near to or at concentration camps or elsewhere is altogether premature, misleading and apt to cause confusion. What is as bad, if not worse, it may keep men out of the service where they are badly needed, who hold back in the hope of being able to select work nearer home.

There is, moreover, a distinct disadvantage in the formation of small and isolated hospitals for any purpose whatever in the medical service of the army.

Military discipline and military records must be maintained. Soldiers fit for service must be moved back to their regiments as fast as possible. Those clearly unfit for further service but no longer hospital cases must be disposed of in some way, and the halt and maimed and blind helped and trained for some degree of future usefulness and self-support in civil life. To accomplish all this in small isolated hospitals would require an immense amount of unnecessary reduplication of service in the way of officers in charge, boards of survey, teachers and apparatus. The

experience in Europe has taught that small auxiliary hospitals, even though having a quasi connection with larger base or general hospitals, involve a great waste of effort, material and time.

We have read with much interest a recent editorial in the *British Medical Journal* of June 16, 1917, upon Military Hospital Economies. This shows conclusively how much waste of time and energy and how much unnecessary reduplication of personnel, both medical and nursing, is brought about by the small auxiliary hospitals which have been organized all over England. Before such hospitals are organized in this country a careful study should be made as to their fitness for the purpose, their ease of access, both from the patient's point of view and that of the army medical department, and the facility with which inspection could be made to insure proper treatment, prompt discharge when recovered or convalescent and the proper conservation of those unfit for further military service.

Book Reviews.

Manual of Psychiatry. By J. ROGUES DE FURSAC, M. D., Formerly Chief of Clinic at The Medical Faculty of Paris, Physician-in-Chief of the Public Insane Asylums of the Seine Department, and A. J. ROSANOFF, M. D., First Assistant Physician, Kings Park State Hospital, N. Y. Fourth Edition. Revised and Enlarged. (New York: John Wiley & Sons, Inc. London: Chapman & Hall, 1916.)

Previous editions of this Manual have been reviewed in this JOURNAL at various times and we have found but little that was not wholly commendable. Owing to the European war, coöperation between the French author and his American collaborator has been impossible, and Dr. Rosanoff is therefore responsible for such changes and additions as have been made.

The chapters in this edition upon etiology, history taking, methods of examination, special diagnostic procedures, prognosis, prevalence of mental disorders, prevention and medico-legal questions have been almost wholly rewritten and are practically new. The same is true of the chapters dealing with Huntington's Chorea, cerebral syphilis and traumatic psychoses.

More or less extensive revision has also been made of the portions of the work dealing with dementia præcox, chronic alcoholism, general paresis and mental disorders due to organic brain diseases. A general revision has also been made, where necessary, of the remaining portions of the work.

The chapter upon etiology has been brought up to the views of the period in nearly every respect, and what Dr. Rosanoff has said upon heredity, a topic upon which he has made, in the past, valuable contributions to medical literature, is of much interest and scientific value. It is perhaps too much to wish that the psychic element in etiology of mental disorders had been given more extended treatment.

Four chapters, covering pages 94 to 221 inclusive, are devoted to the practice of psychiatry, embracing methods of examination, history taking, special diagnostic procedures, general therapeutic indications and methods, parole and discharge, after care prognosis, prevention and medico-legal questions.

In classification the authors follow the Kraepelinian, arranging it, however, according to etiological factors as far as possible.

The book well deserves the reputation which it has attained and which has called for this fourth edition which will still further add to its repute.

A Manual of Nervous Diseases. By IRVING J. SPEAR, M. D., Professor of Neurology, University of Maryland. (Philadelphia and London: W. B. Saunders Company, 1916.)

The author states that "the preparation of this volume for the present and for the future general practitioner has been undertaken in the hope that I have been able to embody in a book of moderate size the facts necessary for a proper understanding of the anatomy, the physiology and the diseases of the nervous system."

The hope thus expressed, when one remembers how many facts there are necessary for a proper understanding of the anatomy or of the physiology of the nervous system, to say nothing of its diseases, would indicate a happy optimism on the part of the author. The phrase "that I have been able" is unfortunate taken in connection with the expression "has been undertaken"; "that I would be able" would be the correct form.

There are many manuals prepared for students. Some teachers appear to regard it as part of their function to prepare one. Some serve a useful purpose in helping students follow their teacher's course of instruction; some are useful in preparing for examinations and others serve as safe and convenient guides in looking up forgotten or disputed points of anatomy or physiology or aids in a diagnosis of the less involved neurological maladies, but few, none indeed that we now recall, cover the whole field of anatomy, physiology and diseases of the nervous system with sufficient detail for a "proper understanding" of all or either.

For the purposes of this notice the chapters upon anatomy and physiology may be neglected except to say that they appear to represent in a condensed form practically the accepted views, and to contain all, and more perhaps, than the ordinary general practitioner would attempt to learn and as much as the student needs for examination.

The section upon examination of the patient is in the main excellent. The directions for spinal puncture are somewhat vague and no warning is given of possible danger, nor of the necessity for the comfort of the patient of rest in bed for some hours after the puncture. The last sentence in the section on spinal puncture is ambiguous: "An increase of albumin in the cells and the presence of microorganisms indicate a pathological condition of the brain and membranes."

A readable section upon diseases of the peripheral nerves covers some fifty-eight pages. The description of the various forms is condensed of necessity, but sufficiently clear. The treatment advised is not always such as can be followed safely. In writing of multiple neuritis a reference to Korsakoff's Syndrome leaves the uninformed reader under the necessity of looking elsewhere than in the Manual for any account of the condition.

The treatment advised for the restlessness, tremor and other symptoms associated with alcoholic neuritis by doses of 15 grains of potassium bromide repeated "every two or three hours," to which 10 to 20 grains of chloral hydrate may be added to the "afternoon and evening dose," is in our opinion decidedly unwise, and more apt to make bad conditions worse than to ameliorate the symptoms present. We have seen case after case of profound mental confusion clear up rapidly when the combination of the bromides with chloral or bromide alone was discontinued, and simple regulation of the diet and hydrotherapy substituted.

The author is apparently not in accord with the accepted views regarding syphilis of the nervous system when he calls *tabes dorsalis* and *paresis parasyphilitic* diseases. His real opinion on the subject is difficult to determine. In his second paragraph on page 459 he says that conditions formerly called *parasyphilitic* we now believe to be "due directly to the

presence of the *spirochaeta pallida* or its products." On page 461 he speaks, as referred to above, of the "so-called parasyphilitic diseases—takes dorsalis and general paresis."

His faith in the results of the examination of the spinal fluid is not as strong as that of many. He says that in doubtful cases of syphilis of the nervous system a Wassermann of the blood and spinal fluid, the Noguchi and other tests will "generally" enable one to reach a correct conclusion. No reference is made here or elsewhere to the now generally used colloidal gold test, a diagnostic method of great value.

The section on general paresis as also those treating of other conditions involving mental disorders leaves much to be desired, and to a general practitioner or student would give an inadequate knowledge of the condition. The differential diagnostic table, page 455-56, is quite defective.

It is doubtful if trauma plays any rôle in the causation of paresis. In practically all of the cases we have seen in which trauma was alleged as one of the exciting causes the paresis either ante-dated the trauma or the trauma so long ante-dated the first symptoms of paresis, that it could be readily ruled out. Without syphilis none of the etiological factors referred to by Dr. Spear, intellectual overwork, worry, chronic alcoholic poisoning is sufficient to produce paresis. We feel inclined to question also whether those whose occupation requires constant mental alertness are more prone to succumb to the disease than those who are not exposed to mental strain.

The sentence on page 449, "In addition to syphilis, other chronic toxemias, such as alcohol and tobacco, (*sic*) and gastro-intestinal disturbances, occupy an important position in the production of the condition" is an evidence of hasty composition and careless proofreading. Certainly the author does not mean to call alcohol and tobacco toxemias; we doubt indeed if on consideration he would put their poisonous effects among the toxemias.

The whole work shows evidence of great haste in its preparation or of great lack of care. It has some merit, but it is a very uneven production—portions of anatomy and physiology of little real importance are given space which could to advantage have been devoted to other portions. The same is true in that part of the work devoted to diseases of the nervous system. The description of symptoms is frequently not made in an orderly manner, leading up from the earliest symptoms to the full development of the malady, such expressions as this symptom is "usually" found or this condition "generally" observed occur too frequently.

There are numerous instances of careless writing in addition to those we have cited. In the paragraph upon the etiology of chorea the introduction of a sentence upon chorea insaniens, to a hasty reader, makes the remainder of the paragraph doubtful in its application, that is, one hesitates for a time to determine whether statement as to the proportion of males and females affected refers to ordinary chorea or chorea insaniens.

The proofreader should have known that Argyle-Robertson is a compound word. It does not appear as such anywhere in the book. Methodist is divided so as to read as Metho-dist.

If a second edition is called for it should be carefully revised—and it is only until such revision is made that the hopes of the author can approach a realization—at present we fear they are doomed to disappointment.

Diagnostic Symptoms in Nervous Diseases. By EDWARD LIVINGSTON HUNT, M. D., Assistant Professor of Clinical Neurology College of Physicians & Surgeons, the Medical Department of Columbia University, New York, etc. Second Edition, Revised. (*Philadelphia and London: W. B. Saunders Company, 1917.*)

We have already spoken favorably of the first edition of this diagnostic manual in a brief notice published three years ago, and it is an evidence that others have concurred in our judgment that a second and revised edition has been called for.

Chapters on Cerebro-Spinal Fluid, Spinal Localization and Vertigo, have been added, several new illustrations have been introduced, and various changes made in the text of various chapters. The outline used in the Medical School at Columbia University for examining cases of nervous disorder has also been incorporated in this edition.

The chapter on the cerebro-spinal fluid is clear and will give the student an excellent idea of the character of this important fluid and the necessity and value of its careful examination in diagnostic methods. A proof error, without doubt, makes the author say that in health the number of cells "varies from 2 to 10 per cubic centimeter" (page 246). Another proof error occurs in this same chapter, the first sentence in the second paragraph on page 262 being repeated.

The diagnostic methods, and the knowledge of the anatomy and physiology of the spinal cord which the student must possess, in spinal localization, are well set forth in the section on that subject, Chapter VI, which is followed by an interesting and instructive chapter on Gaits, a matter too often neglected in the examination of patients in the neurological clinic and especially in the private consulting room.

The work is one which will be of great value to students, and the first chapter with its directions for methodical procedure and the outline for clinical examination could be made use of to advantage in many clinics of neurology.

The Institutional Care of The Insane in The United States and Canada.

By HENRY M. HURD, WILLIAM F. DREWRY, RICHARD DEWEY, CHARLES W. PILGRIM, G. ALDER BLUMER and T. J. W. BURGESS. Edited by HENRY M. HURD, M. D., LL. D., Emeritus Professor of Psychiatry, Johns Hopkins University; formerly Medical Superintendent of the Pontiac State Hospital. Volume III. (*Baltimore: The Johns Hopkins Press, 1916.*)

This volume is a continuation of Part III Volume II already reviewed in the JOURNAL for October, 1916, in conjunction with the first volume. It contains an account of the methods and policies which have been active in the care of the insane in the following states: Montana, Nebraska, Nevada,

New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming and the United States dependencies, Alaska, Hawaiian Islands, Philippine Islands and Porto Rico.

The review of a book of this character is a task which we do not propose to undertake, and one which is practically impossible, for no one is possessed of sufficiently broad or accurate knowledge of the topics treated to meet the requirements of a critical or analytical review.

The material which has been furnished the Editorial Committee of this great work has been of a most uneven character. From some states has come a richness of historical detail which has been embarrassing to the Editor, Dr. Hurd, under whose scrutiny and editorial revision all the manuscripts have passed. From other states there has been a paucity of material so great in many instances that the Editor has been forced to supplement the details supplied, by information which it became necessary for him to collect from such sources as were available.

There have been several reasons for the scarcity of information supplied from some states or institutions. In some instances the heads of institutions have not realized the necessity of personal effort in collecting and preparing data for a historical account of their institutions. In a few there has been a surprising indifference to the whole matter. In several instances as a result of inattention to the matter of the preservation of historical documents and records in the past, material for present use has not been available. Occasionally, too often indeed, the frequent changes in institutional control and state policy toward the insane, due to political machinations, have so confused the records, and in many instances resulted in their loss or destruction, that nothing remained of definite value.

There are many interesting matters in this large volume. One is able to study the development of institutional care and of public policy in the older states, like New Hampshire, New York, New Jersey, Pennsylvania, South Carolina, Vermont and Virginia, and observe the influence of the experience there gained in the formation of the methods of care in other states.

In some like Massachusetts (see Volume II) and New York, progress has been made steadily, if slowly, toward distinct state care, with a settled and definite policy and standard. In other states unfortunately a condition almost chaotic remains, no well-established plan, no standard of care, and frequent interruptions of service by political changes in state administration. In others, alas, and this is found in one or two of the older and wealthier states, there appears to be a retrograde movement with the reappearance or increase of county almshouse methods.

As we have said again and again, and now repeat, these volumes should be in the library of every institution for the insane, and owned by every medical man working in psychiatry.

The fourth and last volume is about ready for distribution, and we trust that before it is issued there will be a large increase in the number of subscribers.

Subscriptions should be sent to the Johns Hopkins Press, Johns Hopkins University, Baltimore, Md.

Abstracts and Extracts.

LASHLEY, K. S.: *The Human Salivary Reflex and its Use in Psychology.* (Psychological Review, 1916, 23, pp. 446-64.)

This is a concise review of literature, with an extensive bibliography. Methods for obtaining the secretion are described. A table is given summarizing the existing data on the rate of salivary secretion in man in the absence of external stimulation. The unconditional salivary reflex has been studied chiefly by way of tactile stimulation, although the work on gustatory stimulation is described at some length. It is thought that the secretion at the sight and smell of foods is an acquired one. A few other direct salivary reflexes are described, but their unconditioned character is also doubtful. A few cases of hysterical inhibition of the secretion are reported. A table is given summarizing the chief unconditioned salivary reflexes. "It will be seen from this that mechanical gustatory stimuli and the withdrawal of water from the oral mucosa are the only excitants of salivary secretion, investigated by more than one man, concerning which there is agreement. With respect to gustatory stimuli there are no complete studies of the quantitative reactions to different qualities and intensities of stimulation, yet the few observations that have been made indicate a specific reaction for each taste substance which, with the introduction of accurate methods of giving the stimuli, will probably prove to be very accurately adjusted."

The salivary secretion following conditionally upon an originally indifferent stimulus forms an almost ideal example of associational as contrasted with trial and error learning. Various advantages over other methods of learning are described, not the least of which is the relative independence of the salivary reflex for conditions of reinforcement and inhibition which affect the activity of striped muscles.

BURTT, HAROLD E.: *A Study of the Behavior of the White Rat by the Multiple Choice Method.* (Journal of Animal Behavior, 1916, Vol. VI, pp. 222-246.)

The author summarizes his work as a presentation to white rats of the first two standard multiple choice problems. These are (1) the first at the right hand of the series, (2) the second from the left hand of the series. The first problem was solved by one inbred and two outbred rats of five months in 200 trials or less. A younger inbred rat required 350. Visual, tactile, and kinæsthetic cues appeared sufficient to form the habit. The second problem was unsolvable for the two rats which attempted it beyond a general tendency to turn left. Further analysis of the results indicates only low level types of behavior.

KOSTIR, MARY STORER: *The Family of Sam Sixty*. (The Ohio Board of Administration, publication No. 8, 1916, 29 pp.)

This genealogical study includes more or less complete charts of five generations, 474 individuals, on 261 of whom some data have been secured. Of the 261, 60 are known to have had court records and 56 to have been in institutions which are tabulated. A table of characteristics of the 261 persons enumerates 74 criminalistic in varying degree, 55 feeble-minded, etc. Seven charts of heredity are given of which the first four deal with blood relatives of Sam Sixty, the next two with blood relatives of his wife, and the next with relatives of her half-brothers and half-sisters. A considerable series of biographical data is presented. Among the conclusions is emphasized the expediency of segregation during the procreative period, the criminal tendencies resulting from physical maturity combined with mental childhood, the ineffectiveness of restrictive marriage laws which serve merely to increase illegitimacy, and the imperative need of society to assume some control of the increase of the human family.

RUMI, BEARDSLEY. *The Measurement of the Efficiency of Mental Tests*. (Psychological Review, 6, 1916, p. 501.)

In the application of mental tests to the selection of employees, the purpose of the test is fulfilled if it succeeds in merely picking out the applicants who are superior allowing other factors to fix their final rank. The tests must be measured by how sharply they differentiate a good group from a not good group. A formula for this purpose is given, and a simple statement of how to apply it, with an example of its application. Shepard's tables of the probability integral are required. By this means it is possible to determine the practical efficiency in the test, to weigh the relative accuracies of selecting the good or the poor individuals, and to determine the best percentage that can be included in either the good or poor groups.

BENNETT, FAYE: *The Correlations Between Different Memories*. (Journal of Experimental Psychology, Vol. 1, 1916, pp. 404-418.)

The material used includes nonsense syllables of three letters, numbers of two digits, concrete nouns of four letters, descriptions of approximately 135 words, narratives of approximately 155 words, etc. The subjects include two professors, two graduate students and three college seniors. The correlations examined were between immediate and mediate retention for auditory and visual presentation. As the results are summarized, the highest of the correlations with other memory functions is shown by nouns presented visually for mediate learning. With refined statistical treatment, high correlation appears between mediate and immediate retention in general; also between immediate retention for disconnected material (*i. e.*, memory span) and the ability to learn the material. Among other points brought out, the mediate learning of both connected and disconnected

material was somewhat better for visual presentation; auditory and visual presentation of the same type of material correlate very well; no relation is shown between the speed of learning and the accuracy of reproduction.

KING, IRVING and GOLD, HUGO. *A Tentative Standardization of Certain "Opposites Tests."* (Psychological Review, 8, 1916, p. 459.)

The opposites tests have found wide favor with many investigators. If the words are easy, the words are supposed to measure the speed of controlled association reactions. If the words are hard, they measure in some degree logical keenness in selecting the word which will express most nearly the contrary idea.

There were used in these experiments the eight lists of stimulus words employed by Simpson.¹ The tests were given to 100 persons, from faculty members to college juniors. Instructions were standardized. Times were taken separately with a stop watch. A very useful series of principles for grading opposite responses is given. Two lists are quoted, consisting only of words to which 90 per cent or more of the subjects gave the correct opposite; each consists of 20 words. A single list of 25 words consists of those to which the accuracy of response was less than 69 per cent. There is, of course, a continuous scale of increasing difficulty with these opposites, and it is pointed out that such graded lists can easily be constructed from the frequency tables given in the appendix. Among the tendencies to false reactions, there are especially noted the repetition of the stimulus word, the response with a synonym, response with a near-opposite, but different part of speech, response with an opposite previously given (perseveration). A system of penalizing included in the scoring furnishes a good measure of individual differences in accuracy. There is a slight correlation between speed and accuracy in the easy lists which disappears with the hard lists. With easy opposites definite correlation appears between ability in the test and general intellectual standing, which was not so marked for the harder material. The frequency table given at the close is a very valuable contribution to the understanding of opposites tests.

GATES, ARTHUR I.: *The Mnemonic Span for Visual and Auditory Digits.* (Journal of Experimental Psychology, Vol. 1, 1916, pp. 393-403.)

The purpose of the work was to find the exact memory span of a number of individuals, and discover the effects of increasing the presented series beyond the span. About 165 college students underwent the tests, working in groups from eight to 14 persons, the earliest group beginning at 8.10 a. m., and the latest at 5.10 p. m. The experiments covered two days. Auditory series of digits ranging from 4 to 12 in number were given by means of a silent pendulum for timing. A simple exposure method was used for similar visual series. The results were scored by counting the digits correct

¹B. R. Simpson. Correlation of Mental Abilities. Teachers' College, Columbia University. Contributions to Education, No. 53.

in form and position; position being correct if it was in the right place when measured from either beginning or end of the series. The average memory span for auditory digits was 7.666. The same individuals averaged 8.172 digits by the visual method. The mode is eight digits with either method. The normal memory span for visual presentation is therefore set at eight digits; and, although less exactly, the same must be done for practical purposes with auditory presentation. The ability of individuals varies more when the number of digits exposed surpasses the span. A greater number recall but very few, up to four digits, while others recall very many. An increase in the number of digits exposed has an unfavorable influence on the immediate memory, the average number remembered being in no group equal to the average span. The average production is 24.9 per cent with visual method and 36.6 per cent with auditory method.

BELL, J. CARLETON: *Mental Tests and College Freshmen*. (Journal of Educational Psychology, Vol. VII, 1916, pp. 381-400.)

A brief review is given of related studies by Wissler, Waugh, Bingham, Hollingworth and Simpson. The tests employed were cancellation of triangles, addition, association by learning pairs, recognition memory, selective judgment (after Bonser), following directions, alternatives (after Squire), and completion; nine tests in all with a working time for the whole series of 20 minutes and a total time required of about 45 minutes. The subjects were 750 freshmen in groups averaging a little less than 20 each. The correlation of university marks and test scores are uniformly low, the highest being English—Completion, .31. Computing the average correlation of each test with all the others and arranging them in order the following array is obtained: (1) Completion, .206; (2) Alternatives, .190; (3) Directions, No. 1, .181; (4) Directions, No. 2, .155; (5) Addition, .144; (6) Association, .137; (7) Recognition, .131; (8) Triangles, .076; (9) Selective Judgment, .043. In general the scores are so variable as to be of slight value for individual diagnosis, but this is at least partly accounted for by conditions inherent in giving the tests to groups.

ANDERSON, HOMER W., and HILLIARD, GEORGE H.: *The Standardization of Certain Mental Tests for Ten Year Old Children*. (Journal of Educational Psychology, Vol. VII, 1916, pp. 400-414.)

A group of seven tests was given to 115 unselected 10 year old children in the Iowa City public schools, 51 boys and 54 girls whose grade distribution is given. The experiments are described with some care and a noteworthy feature of the "A" test used was the means of controlling the motor factor involved in cancellation tests. This seems to add materially to its value, its correlation with grades being distinct. The other tests were (2) immediate memory with Whipple's 13 picture charts, (3) two opposite tests (after Woodworth and Wells), (4) association of numbers with certain geometrical forms, (5) the words boy, river, ball in a single sen-

tence, (6) two rectangle-triangle tests, (7) selective judgment and problem questions. Immediate memory shows little or no correlation with grade advancement and it is suggested that it is rather the retentive that is correlated with school progress. The opposites test shows, as other investigators have found, good correlation with other measures of ability. The *boy, river, ball* test also shows good correlation with grade advancement, as does the mechanical invention test. Selective judgment shows comparatively little grade correlation. In the fifth grade and lower the question is answered with reference to its intrinsic validity only. At this age the chief value of the test appears to be for differentiating the superior from the average child. A table is given showing the distributions by quartiles for the sexes in which the boys show a distinctly better performance than the girls.

MOORE, R. FOSTER: *The Retinitis of Arterio-Sclerosis, and Its Relation to Renal Retinitis and to Cerebral Vascular Disease*. (Quarterly Journal of Medicine, October, 1916-January, 1917.)

Mr. Moore carried out the investigations which are the basis of this article at the Moorfields Eye Hospital, and the Ophthalmic Department of St. Bartholomew's Hospital, London, with three main objects in view:

1. To define, as accurately as possible, those changes in the retina and its vessels which are indicative of arterio-sclerosis—to determine their relative importance, and to follow their development and course over considerable periods of time.

2. With a hope to establish that a condition of retinitis may be engrafted on retinal arterio-sclerosis; that this retinitis has distinctive characters; and that in its course and prognostic significance it differs markedly from renal retinitis and calls for separate recognition.

3. To consider in detail the extent to which disease of the retinal vessels is an indication of similar disease of the cerebral vessels.

It is impossible in a brief summary to follow the author in the steps which lead to the conclusions which he has reached. He believes that there is a form of retinitis which is associated with severe general arterio-sclerosis caused by the local retinal vascular disease, and only incidentally connected with renal disease. It is always associated with severe general arterio-sclerosis and disease of the retinal vessels. Its gradual evolution from retinal arterio-sclerosis can be traced. The ophthalmoscopic appearances are in a large measure distinctive. It is frequently unilateral and cotton-wool patches never occur.

The tenure of life of its subjects is very uncertain, but they often live a number of years. The cause of death is referable to disease of the vascular system and not to renal disease.

In regard to the third point, disease of the retinal vessels as an indication of similar disease in the cerebral vessels, his summary is as follows:

Of 44 patients suffering from gross cerebral vascular disease, 31 exhibited evidence of retinal vascular disease, 19 of them in a severe degree.

It is impossible to reproduce the tables in which the findings in the cases examined are recorded. Table A comprises cases 1 to 35 in whom retinal arterio-sclerosis alone was present. Table B includes cases 36 to 66 in whom retinal exudates were present in addition to arterio-sclerosis—arterio-sclerotic retinitis. Twenty-seven cases in tables A and B are known to have died. In 26 the cause of death was ascertained and in 12 of these it was some gross vascular cerebral lesion. Of the patients in tables A and B there are 46 in whom there is satisfactory information as to the development or otherwise of gross cerebral lesions. Of these 46 patients 21 had either suffered or developed such a lesion in about three years and as 18 others are known to be alive, the above number of cases of cerebral lesions is expected to be increased as time passes.

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DEVELOPMENT OF THE PERSONALITY.*

By PROF. EDWIN GRANT CONKLIN, PRINCETON UNIVERSITY.

I submit that your president has cut out for me a very difficult task. Certain former friends of mine—I cannot in the present circumstances account them otherwise than that—induced me to appear on this occasion before a body of specialists, I, a person who works most of the time with general biology. I feel a great hesitation in attempting to speak in this presence and especially now after your president has said so many kind things in his introductory address. Furthermore, I labor under an additional difficulty which I must mention before I go further; and that is that I had hoped to appeal to two of your senses to-night, your vision as well as your hearing. But owing to the inability of the hotel management to procure a stereopticon on this holiday, it is necessary for me to leave out the lantern slides; hence, I must appeal only to your sense of hearing. I hope to make plain, however, some rather complex subjects which are difficult to present through the hearing alone.

No intelligent person doubts that man is an animal, a vertebrate, a mammal, although there are some people who hesitate to accept that classification. The late John Fiske used to tell of a man who became very indignant when told that he was a mammal and replied, "I am not a mammal nor the son of a mammal"; he explained that he had probably been brought up on a bottle. No well informed person doubts that heredity, development and evolution apply to man as well as to all other living things, and yet I

* Annual address delivered at the seventy-third annual meeting of the American Medico-Psychological Association, New York, May 29-30-31-June 1, 1917. Professor Conklin spoke without manuscript and the address is reproduced from stenographic notes.

have known people who granted only grudgingly that man develops from a fertilized egg or that heredity has any part in the development of mind or soul, while they rejected altogether the conclusion that evolution applies to man. Such persons are influenced by sentiment rather than by evidence and it is useless to attempt to convince them by an appeal to facts, while those trained in science do not need to be convinced of those elemental truths.

"Development," said Karl Ernst von Baer, "is a veritable torch-bearer in the study of organic bodies." This is true of the study of the entire personality of man, of the mind as well as of the body, for as the body of man develops out of the structures of the fertilized egg, so the mind of man develops out of the functions of the egg.

In the development of personality as in the development of any organic structure there is no creation *de novo*, but merely a transformation of parts and functions already present in the germ. New things appear in the course of development by a process of *creative synthesis*, for just as hydrogen and oxygen when they combine form water which was not present in either of its elements, so the germinal functions of sensitivity, tropisms, organic memory, trial and error, persistence of organization, etc., when all cooperate, produce by a process of creative synthesis something which was not present before, viz., *consciousness*.

The factors or causes of development, whether of the body or of the mind, are found both in the germ cells and in surrounding conditions, or, in other words, in heredity and in environment. Heredity is on the whole a more important factor than environment; it determines all the possibilities of development and all its main results, whereas environment serves chiefly to modify these results.

One of the greatest discoveries ever made in biology is that of Gregor Mendel, that the characters of an organism which are derived from the father and those from the mother separate in reproduction, the germinal causes of these characters going into separate germ cells, so that one germ cell will carry the inheritance units or germs for certain paternal characters and another for corresponding maternal characters, and when male and female germ cells from different individuals unite in fertilization a new combination of characters results, thus giving rise to a new individual.

It was by intensive observational and experimental work that this great discovery was made; the mere accumulation of a vast body of cases illustrating the resemblances between parents and offspring, such as the big volumes of Prosper Lucas on heredity, could never have led to the discovery of Mendel's law; and I think it is especially worth while for physicians and others engaged in studying human heredity to remember that the thorough study of a few families is worth more than the accumulation of statistics regarding thousands of illustrative cases.

The principles of Mendel make it possible to analyze an individual into many characters which are hereditarily separable and to follow these separate or unit characters through many generations. Some characters, such as blue or brown eyes, straight or curly hair, etc., are simple and it is relatively easy to determine the precise manner in which they are inherited; other characters such as skin color, size or stature, etc., are more complex and it is more difficult to determine their method of inheritance, and in general the more complex a character is the more difficult it is to determine its mode of inheritance. Nevertheless, whenever a complex character can be analyzed into its simple constituents the latter are always found to be inherited in Mendelian fashion.

But while the mode of *transmission* of the inheritance factors or genes for unit characters is a relatively simple matter, the *development* of even the simplest character is inconceivably complex, depending upon the interaction of very many germinal and environmental causes. For example, it is known that the differences in structures, functions and instincts between queen bees and worker bees are due to the character of the food given to the larvæ. In the case of man and other higher animals the presence of internal secretions from the thyroid, thymus, pituitary body, sex glands, etc., exercises a profound influence on the development both of the body and of the mind. All such influences are, strictly speaking, environmental, since they are not due to the constitution of the germ cells, but to conditions outside of these cells.

In man, training, education and social conditions also exercise a profound influence on the development of mind and personality. Indeed, heredity determines merely the possible limits of development, while environment and education determine the actual results which will be realized within these limits.

Recent studies have shown that the development of such simple characters as coat color (Wright), eye color (Morgan) and sex (Wilson, Lillie, Goldsmidt), are exceedingly complex and that very many hereditary factors may be involved in the process. When we come to the development of more complex things such as temperament, feeble-mindedness, insanity, personality, we are dealing with the most complex phenomena in all the world—inconceivably more complex than any of the problems of astronomy, physics or chemistry. If eye color in the fruit fly is dependent upon a large number of inheritance factors, as Morgan and his pupils have shown to be the case, how much more probable is it that epilepsy, feeble-mindedness, genius and insanity are dependent upon a still larger number of inheritance factors, as well as upon an innumerable number of environmental causes. We may be sure that when the whole "alphabet of degeneracy from alcoholism to wanderlust" is attributed to the lack of a single hereditary factor, there has been a pitiful failure to recognize the complexity of the phenomena in question.

Particularly in the study of the development of mental and moral traits there is great need of caution against over-simplification. The web of hereditary, environmental and educational causes is so intricate that it is often impossible to decide whether a given trait is inherited or not, and it is usually impossible to predict what the character of offspring will be. Some very unpromising stocks, some most untoward environments, have produced wonderful results. When we remember that Beethoven's mother was a consumptive and his father a confirmed drunkard; that Michael Faraday, perhaps the greatest scientific discoverer of any age, was born over a stable, that his father was a poor, sick blacksmith, and that the only early education he had was obtained in selling newspapers on the streets of London and later in working as apprentice to a bookbinder; that Lincoln's father was a ne'er-do-well, and his early surroundings and education most unpromising; that George W. Child was a nameless foundling, and so on through the long list of names in which democracy glories—when we remember these world-famous men and when we reflect that eugenicists and birth-controllers would have deprived the world of these superlative geniuses if they could have had their way, we may well inquire whether it is not fortunate that we are in

the hands of an all-wise Providence rather than of an unwise propaganda.

This is not to say that these and other geniuses have not developed according to definite laws. It is no miracle that Lincoln should have

"Burst his birth's invidious bar,

* * * * *

And mounting up from high to higher,

Become on fortune's crowning slope

The pillar of a people's hope,

The center of a world's desire."

But the processes by which genius is produced are extremely complex and at present we are just beginning to learn about them. Undoubtedly the factors or causes of all kinds of development are found in heredity and environment, but with regard to the development of the most complex thing in all the world, viz., human personality, we are as children in the morning of time.

A WIDER FIELD OF ACTIVITY FOR THE ASSOCIATION.*

By JAMES V. MAY, M. D.,

Superintendent, Grafton State Hospital, North Grafton, Mass.

The American Medico-Psychological Association has a dignified history of nearly 75 years of continuous activities. Founded in 1844, it has consistently maintained standards which have made it one of the most prominent of the medical organizations of the country. It was conducted for nearly 50 years as the official organization of the superintendents of the American institutions for the insane, and only adopted its present designation after the reorganization in 1892, when its membership became more general.

It now includes as active members physicians "especially interested in the treatment of insanity," or who "by their professional work or public writings, have shown a special interest in the care and welfare of the insane." Laymen who "have distinguished themselves by their attainments in branches of science connected with insanity, or who have rendered signal service in philanthropic efforts to promote the interests of the insane" are eligible to honorary membership. The Association has assumed a position of prominence among the scientific organizations of the country, and includes in its membership practically all of the prominent American psychiatrists of the day.

It has, however, unnecessarily and unwisely relinquished its official representation of the various state bodies responsible for the management of the institutions, public and private, for the insane. In so doing, it has failed to take advantage of the opportunity of encouraging and assisting in the maintenance of high standards of care throughout the country, of influencing legislation conducive to the welfare of the insane, and of guiding the destinies of the institutions as it should.

The Association should be the most powerful factor in the country in obtaining state recognition of the needs of the insane,

* Read at the seventy-third annual meeting of the American Medico-Psychological Association, New York, May 29-30-31-June 1, 1917.

in fostering legislation which will prevent political interference with the hospitals, and in bringing the standards of care up to the high plane represented by ideals kept constantly before the public by this organization since its foundation in 1844. If this is to be done we must include in our membership the men who control the policies of the institutions in the various states.

For this purpose I would suggest for your consideration, if necessary, an amendment to the constitution which would render eligible, *ex officio*, as active members all duly elected or appointed managers or trustees of state hospitals for the insane, and all members of commissions and boards of control having administrative or financial responsibility for state institutions for the insane, such eligibility to continue while actually in office. They should, of course, be required to pay annual dues and be subject to all the requirements of the constitution applying to active members. If the Association is not to be an official organization representing the institutions for the insane—and it has not been since 1892, it should at least include in its membership the managing and governing bodies vested with the administrative control of the hospitals in the various states and provinces. This subject might very properly be referred for further consideration to a committee to be appointed by the president.

The Association should, in my opinion, be something more than a purely scientific body, meeting annually for the presentation and discussion of papers relating to psychiatry. It should officially exercise the functions which the professional qualifications and official position of its active members would fully warrant. No other one thing would go so far towards insuring humane and proper care of the insane in this country.

The report of the Committee on Statistics at this session calls attention to another phase of activity of the Association which has been under consideration for many years. At the 23d annual meeting in 1869. Dr. Nichols called the attention of the Association to a system of statistics adopted at the International Congress of Alienists held in Paris in 1867. A series of statistical tables, 21 in number, were prepared by a committee and used unofficially for several years, although for some reason never formally adopted. Another committee reported on this same subject in 1896, unfortunately without any definite action.

At the present time we are without any statistics on the insane of the country which can be correlated and made a subject of scientific study and investigation. With a wealth of material available which would go far towards solving many important problems relating to psychiatry, we find the various states, and more often individual institutions in the same state, working along entirely dissimilar lines.

Our text books are filled with uncorroborated assertions relative to the frequency of certain forms of insanity. These are often based on the personal experience of the author or on statistical data available from his own hospital. The official publications of a few isolated states give such information in an intelligent form, but anyone who wishes to compare conditions existing in one community with those in another, or make comparative studies of large numbers of cases, almost invariably finds the necessary information unavailable.

Accurate statistical data showing the etiology of insanity is published in but few places, and the discussions of this subject are based more on opinion than on the study of a sufficient number of cases to warrant any conclusions. The same absence of authentic information renders it impossible to obtain any accurate knowledge regarding the recovery rate of the different psychoses. Dementia præcox is conspicuously absent from many of the hospital reports, which include primary dementia, chronic delusional insanity, terminal dementia and other conditions which may or may not belong in the dementia præcox group.

When statistical reports are made they usually contain information, which is of itself very largely useless, relating to the civil condition, color, sex, age, residence by counties, financial status, etc. Unless the psychoses are shown in these tables they are of no value whatever. In any event it is impossible at the present time to obtain statistics regarding any one phase of insanity which is of any importance, from more than a very few states where the insane population is unusually large.

Accurate statistical reports made along uniform lines would enable us to reach important conclusions regarding the frequency of occurrence of the various psychoses, the probability of recovery, the intercurrent affections causing death, etc.

A uniform basis for financial reports made annually to the Association would be of incalculable benefit. This would not conflict in any way with returns made to local fiscal officers. Our attention is often called to the apparent fact that the per capita cost of maintaining the insane in certain states is unreasonably high, whereas they are cared for at a much lower rate in other communities. This has frequently been made the subject of legislative investigation, usually with highly misleading conclusions, owing to the fact that we have no uniform way of computing costs. Some institutions in reporting the cost of maintenance deduct from the gross expenditures the receipts from all sources, including the care of reimbursing patients and the value of all farm and manufactured products. Others very properly do not. Some include only the ordinary repairs and replacements and others the cost of new and additional equipment, extraordinary repairs and even additions to buildings. The result is that, if the statements published in annual reports are taken at their face value, the same methods of administration that would appear penurious in one institution would be interpreted as gross and almost criminal extravagance in another.

The reports of the State Hospital Commission in New York have been enlightening as to the burden of maintaining aliens in our public institutions. It has been shown that there are now about nine thousand patients in the hospitals of that state who are not residents of New York or citizens of the country. The actual maintenance of these aliens is costing the state approximately two million dollars per year. This is undoubtedly a condition which exists in practically the same relative proportions in the other states. The facts which are necessary for an intelligent discussion of this important question are, however, lacking because this subject has not been generally included in statistical reports.

The national and various state mental hygiene societies have been endeavoring to educate the public regarding the importance of the relation existing between insanity, syphilis and alcohol. Unfortunately statistics on these subjects cannot be obtained in many of our larger communities.

In view of the objects and purposes of the American Medico-Psychological Association it would appear to be the obvious duty of this organization to endeavor to remedy this unsatisfactory con-

dition of affairs. The report of your Committee on Statistics has pointed out the way in which this can be accomplished. The approval by the Association of a scheme of uniform statistical reports of the insane will unquestionably insure the success of such a movement, and a concerted effort on the part of our members is quite sufficient to bring about the adoption of these statistical forms in the various states and insure their general use.

I would strongly urge upon the Association the advisability of establishing a bureau of statistics for the purpose of compiling and publishing annual reports on the insane in all the states and provinces as far as obtainable. Such a bureau could probably be maintained at a comparatively small expense in cooperation with the National Committee for Mental Hygiene.

The success of "The Institutional Care of the Insane in the United States and Canada" shows conclusively that undertakings of this magnitude are entirely practicable, if the Association will assume the function which properly devolves upon it of correlating the work done by the various states. It would appear to be practically certain that the federal authorities can be induced to arrange for a census of the insane based on our official classification which will, for the first time, furnish us with intelligent information on this important subject. If the Association accomplishes nothing else, this would constitute one of its most important contributions to medical progress.

DISCUSSION.

DR. STEDMAN.—Mr. President, I think this is a most important matter and I heartily endorse Dr. May's scheme for a better plan of statistics. One result of the lack of uniform national statistical tables I have not seen mentioned; and that is the vitiation of our national census statistics with regard to the insane and feeble-minded. That department of the National Census has been, to be sure, more elaborate of late and the data much more carefully compiled; but on the vexed question as to the increase of insanity, its statistics are practically valueless for want of statistics relating to first admissions—the admissions of *first cases*—to our hospitals. It stands to reason that statistics which do not give the number of *fresh* cases admitted to the hospital in a given period in proportion to the increase in the population, but enumerate simply all the admissions, including therein all the readmitted cases and other chronic cases, must necessarily be practically worthless; and for want of proper tables we have to turn to those of Great Britain which are very good and useful. We have nothing of the

sort in this country. I think it most important that the statistical report presented by the special committee on the subject should be accepted and that it should be adopted and utilized in all the hospital reports of the country.

DR. WHITE.—Mr. President, I may not have correctly understood one matter: I take it that this paper of Dr. May's is more or less in the way of, or in the nature of a report of the Committee on Statistics.

THE PRESIDENT.—The statistical report is a very elaborate report. Dr. May's paper is quite a different matter, although it is closely related to the general subject of statistics.

DR. WHITE.—Mr. President, I was merely going to suggest that perhaps it would effect the object that Dr. May and the committee is trying to accomplish if the Association should accept the report of the committee when it is duly made and cause it to be printed with the suggestion on the part of the Association that the outlines suggested be adopted by the various states. It has been prepared by very competent men. Great Britain has succeeded in getting uniform statistics by getting all the hospitals in that country to do this and I believe that we too might accomplish it in this way.

DR. GERSHOM H. HILL.—Mr. President, touching on the first recommendation of Dr. May as to having official boards or members of official boards become members of this Association, I would call your attention to the National Conference of Charities and Corrections which holds its annual meeting in Pittsburgh soon. I have attended several meetings of the conference and expect to attend the one this year. We find that it is a great help to public officials to attend these conferences and to participate in them actively. I think the more they attend them the more useful they become to their institutions. I think that there should be everywhere a desire on the part of all state institution heads to inform themselves concerning this kind of work.

DR. ROBERTSON.—Mr. President, I enjoyed hearing Dr. May's paper very much and I think he should have support so far as his plea for reform in the nomenclature of statistics is concerned. I hope I will not be considered old-fashioned if I differ slightly with the Doctor as to his plan of bringing managers and lay members in as members of this body. It seems to me that the success of this Association has resulted largely from its personnel. The experience of our members has caused them to form opinions and the result has been a growing and a harmonious body. If we bring in laymen and boards of managers or others connected with affairs relating to the care of the insane, we would bring in inharmonious elements and as an old-timer I feel that I cannot approve of the Doctor's suggestion. I think it is the duty of the superintendents of the various institutions to educate their boards; to bring them up to a point where they become able to do efficient work for the institutions. I found always that it was the duty of the superintendent to manage his board. Some succeed in this and some

become discouraged and retire and others die in the harness. I would dislike to see this work taken from the superintendent's shoulders because I think it is of very great value to his board.

DR. COPP.—Mr. President, there are a great many forces at work along these general lines and I think this subject brings up the question whether they can be correlated along more definite courses of action. It would be entirely in harmony with what is being done in most progressive states. Annually or semiannually the trustees of institutions and their superintendents come together in a conference. I think this has been a growing movement and productive of very great good. If this Association should broaden its membership it would be entirely in harmony with this movement. This Association would then represent, as a national association, all the forces interested in this great problem.

DR. BLUMER.—Mr. President, I was not in the room when Dr. May read the first part of his paper so that what he said as to the admission of boards of managers and trustees to membership in this body is largely a matter of inference.

I also wish, as another old member, to enter my protest against any scheme that would tend further to laicize the American Medico-Psychological Association. I am old enough to remember how most of us were pleased when the title of our Association was changed from that of The Association of Medical Superintendents of American Institutions for the Insane to that of the American Medico-Psychological Association. I remember, too, the further step forward in 1903 when we became a component member of the American Congress of Physicians and Surgeons. I remember also—and remember, I must say, to my own shame—that as a step backward and downward we soon withdrew from the Congress. The aim has been for several years to make this Association a more scientific body, and to laicize it now, in the manner proposed, would be a further step downward and backward. I am very glad to note that at least one member has made his views known on this subject and I hope there are others of like opinion who will express themselves on this floor.

DR. WORK.—Mr. President, I would like to say a few words to express my appreciation of what the member who first spoke said and also of the views just expressed by Dr. Blumer. I have served under a Board of Control, I am a member of one now, I have never suffered from them in any way and I have never tried to harm any one that I can recall, but I am frank enough to say that the greatest detriment or injury to state institutions in their scientific work are their boards of control. These men are usually appointed, as we know, for political reasons; and there are many superintendents of state institutions who are compelled to keep one eye shut and the other on the Board of Control during their whole life as superintendent. These boards are a menace to state institutions as now selected, although there are exceptions. Many members of these boards are appointed and take their office with no conception of institution work but seem to feel that they are there because the medical man in charge is

not supposed to have any conception of business methods. Their primary instinct is to lower the cost of maintenance; and I personally feel that to admit those men to membership in this Association in any capacity except as visitors would be a grave mistake and would lower the tone of the Association which we are trying to build up and broaden out as a scientific body.

DR. CARLOS MACDONALD.—Mr. President, I heartily concur in the remarks of Doctors Robertson, Blumer and Work in regard to the question of the admission of laymen into active membership in this Association. The Association has now a standing and reputation as a scientific body, and if we admit a lot of laymen, members of boards of managers, or of boards of control, the Association would soon become a charitable rather than a scientific body. I know from observation and experience something about boards of managers, and I have sometimes felt that I would like to write a paper on "What I Know about Boards of Managers." I am heartily opposed to changing the essential character of this body through the introduction of lay members. I commend the meetings to which Dr. Copp has referred to the various states—the conferences of medical and other officers of institutions for the insane—I know that such meetings are most beneficial in the state of New York where they are of frequent occurrence, but they are held for the purpose of considering administrative questions, methods of management, expenditure, etc., and the lay members are not there to consider questions of psychiatry. That, I think, is alone the function of this Association. Moreover, as Dr. Work has suggested, some managers are inclined to indulge in cheese-paring in matters that fall within the medical purview; and some of them feel that the medical officers are lacking in business capacity, notwithstanding the fact that the superintendents of the hospitals (I am speaking for those of the state of New York) are, as a rule, excellent administrative and executive officers. I know from personal experience some managers whose chief aim in the institutions with which they are connected is to see how cheaply the care of the insane can be made—that is, for how little body and soul can be kept together; they want to make a record on the financial side and frequently politics come into the administration of these boards—I do not mean all, but instances of that kind are not wholly unknown in the state of New York. Although I must say that there has been a marked improvement in the quality of the men appointed on these boards in recent years, men who command the highest respect in their respective communities. Another comparatively recent and highly commendable innovation is the appointment of women on such boards.

DR. WILLIAM A. JONES.—Mr. President, many years ago I served as assistant physician in a hospital for the insane in Minnesota and, after four years' service, I dropped out because of the political status of the Board of Trustees. I afterward regained some prestige by becoming a trustee myself, which position I held for two or three years, until a new administration came in and then I was promptly dropped out.

I feel that conditions have improved very much in Minnesota in the abolishment of the uncertain board of trustees. We have had, for some years now, what Dr. May has suggested—a conference board made up of superintendents and assistant superintendents of various state hospitals, together with the Board of Control, and I know that this makes a very satisfactory conference body. They have monthly meetings and talk over various hospital problems and usually one of the superintendents or members of the Board of Control reads a paper.

These conferences have done much for the institutions and for the Board of Control in that they leave the superintendents free to attend to the medical work and the Board of Control has become educated in the hospital management so they confine their activities largely to construction and to the disbursement of appropriations from the legislature. The service is better on all sides and the education of the community at large, and throughout the state has gained in influence.

I believe that the introduction of these semi-politicians would be a great detriment to the Medico-Psychological Association.

DR. CARMICHAEL.—Mr. President, I certainly believe that some method of determining a more uniform system of statistics is the prime need of our institutions throughout the country. At the present time the classification in every institution seems to follow the predilections of its presiding officer or of the member of the staff having in charge the clinical workings of the institution; thus, the classification is based entirely upon their conception, and it is safe to assert that that is determined by their favorite medical author. I recall an institution that for a period of 12 years showed exactly two classifications in recording the types of insane admitted; 80 per cent were classed as cases of mania and 20 per cent melancholia. Now, there were 12 years of statistical data that were absolutely without value to the profession. The important question now is in what particular way can we get at this matter of classification to provide a uniform standard that will serve not only for our own country, but will be an international classification. That is a point I would like to hear fully discussed.

It is of the utmost importance both from a standpoint of statistical value as well as from the standpoint of universal nomenclature effecting the value of physicians in institutional work that a classification uniform in its application be adopted at the earliest possible time.

DR. C. B. BURR.—It seems to me, Mr. President, that if this proposed classification is to be adopted action had better be taken before the membership is very much augmented. Certainly there are heads enough now to get together and these medical heads entirely competent to undertake work of this kind. We don't need lay membership to put it across. I should feel very reluctant, indeed, to see the membership of the Association increased as Dr. May has suggested. Furthermore, I think you will all have to undertake in connection with this report, if adopted, a campaign of education. Representatives understanding it will have to go from institution to institu-

tion and enlighten some of the less enlightened as to what the classification all means and as to what is to be done with it.

THE PRESIDENT.—If there is no further discussion of Dr. May's paper, I will ask him to say a few words in closing.

DR. MAY.—Mr. President, I am very glad to find that at least I have injected some interest into the proceedings at this time and brought up a subject which seems to have been one of considerable importance.

I agree with the suggestions that have been made by several of our members about boards of control and managers of institutions in a general way and I think the speakers have proved conclusively that these boards need the refining influences of this Association to guide them properly. I still feel, however, that if we had them associated with us, we would be in a position in which we might influence legislation and remedy such conditions as Dr. Jones has adequately and eloquently described.

OUGHT LIMITED RESPONSIBILITY TO BE RECOGNIZED BY THE COURTS? *

By CHARLES P. BANCROFT, M. D.,
Superintendent, New Hampshire State Hospital.

The problem of criminal responsibility is perennial. The only apology for any contribution upon such a time-worn theme is the lure of its many intricate and interesting phases. Two opinions have prevailed; one, that the fixing of responsibility is outside the physician's province; the other, that the problem is distinctly medical because any consideration of responsibility involves a study of mental states in the transgressor, and such investigation requires for its prosecution the experience of the trained psychiatrist. At one time the writer was inclined to favor the opinion that the fixing of responsibility was not within the physician's competence, although his interrogation by the court on this point would be perfectly admissible. Subsequent observation has modified this earlier impression and led to the conviction that the determination of responsibility is essentially a medical proposition for reasons which will appear within this paper. One frequently hears that any discussion on responsibility is chiefly academic, has been worn threadbare during the last 50 years, and is therefore profitless. Such reasoning is specious and does not satisfy the craving of the legal and medical professions for common ground on which both may meet with mutual satisfaction.

At a notable congress of alienists and neurologists held at Geneva and Lausanne about 10 years ago, a lively discussion occurred on what the attitude of the medical profession should be toward the metaphysico-legal idea of responsibility. Ballet and Grasset debated the subject. A large majority of the congress agreed with Ballet that "since questions of responsibility are of a metaphysical and juridical order and outside the physician's competence, a judge is not entitled to demand the physician's opinion concerning them." (Havelock Ellis, *Journal of Mental Science*, Vol. 54, p. 155.)

* Read at the seventy-third annual meeting of the American Medico-Psychological Association, New York, May 29-30-31-June 1, 1917.

More convincing appears the opinion of Toulouse and Crinon in an article published in the *Psychiatric Review* in 1906. These medical writers favored the idea that the "problem of penal responsibility is a psychological problem" and that inasmuch as responsibility cannot be determined without a careful examination of the mental state of criminals "expert advice must be sought." They insist that only the physician trained in modern psychological methods would be qualified to render such advice. Expert advice thus secured would become of great assistance to the court, who, either rejecting or utilizing the knowledge thus obtained, would be materially aided in fixing the degree of responsibility and prescribing the penalization. (Havelock Ellis, *Journal of Mental Science*, Vol. 53, pp. 195, 196.)

The attempt of certain jurists to clarify the situation by postulating a "medical" and a "legal" insanity is misleading and scientifically inaccurate. In fact such pseudo-classification is merely a reversion to Lord Hale's famous dictum of a "total" and a "partial" insanity. The endeavor to partition the mind, saying that one portion may be diseased and the other intact, and that the entire mind must be affected to constitute legal insanity, is futile because such procedure is inconsistent with mental pathology.

Ballet insisted that the question of responsibility is a metaphysical one, does not concern the medical profession, and should ultimately be determined by the court. According to this interpretation the alienist's obligation ceases when he has pronounced the individual either sane or insane; the placing of responsibility, being a non-medical matter, would then rest with the court. Neither the medical nor a large portion of the legal profession will readily assent to this conclusion. Psychical processes play so prominent a part in the genesis of responsibility and are so vitally affected by either functional or organic disturbance of the brain that the problem must be largely medical and ultimately determined by the alienist. The jurist cannot afford to ignore the aid of the physician and must be guided by his experience. Court procedure confirms the material value of medical assistance. Advocates constantly press the alienist for his opinion regarding the responsibility of the person under trial in spite of various theories that have prevailed from time to time concerning his competence to render such opinion.

At this point the legal profession, through misconception of the nature of mental processes, err in expecting that the medical expert will draw an exact line of demarcation between absolute responsibility and complete irresponsibility. The lawyer desires the physician to apply some sort of psychological yardstick and state the exact point at which responsibility ceases and irresponsibility begins. No middle ground is desired. To anyone familiar with mental processes such accurate measurements and lines of demarcation are known to be absolutely impossible. The mental mechanisms upon which conduct and responsibility rest cannot be registered with the same mathematical precision as the cylinder bore of the gasoline engine. Imperceptible gradations between different mental processes and their final expression in conduct presuppose varying degrees of responsibility passing gradually from full responsibility through various shades of modified and attenuated responsibility down to total irresponsibility.

Abrupt and well defined lines of demarcation between full responsibility and total irresponsibility cannot therefore always be drawn. The lawyer must not expect mathematical boundary lines between immaterial mental states. Gentle gradations rather will mark the transition between different mental mechanisms and their final expression in conduct. Generally the psychiatrist can with fair accuracy connote total irresponsibility, total responsibility, and modified responsibility.

In 1907 appeared Grasset's book on "The Semi-Insane and the Semi-Responsible," translated by Jelliffe. The author elaborates the arguments in favor of and against the recognition of "attenuated responsibility." Grasset firmly believes that the "question of responsibility is by no means metaphysical, but it is psychological; consequently it is also a medical question." (*Op. cit.*, p. 379.) One of his conclusions has much practical significance: "When a semi-insane individual has committed a misdemeanor or crime, he should be both punished and treated at the same time." (*Op. cit.*, p. 397.)

The latest contribution on the subject of modified responsibility is an article on "Insanity and Criminal Responsibility" in the *Harvard Law Review* for April, 1917, by Edwin R. Keeley, chairman of a committee for determining the relation of insanity to criminal responsibility. This committee presented to the Institute

of Criminal Law and Criminology a Criminal Responsibility Bill. This bill was criticized by the editor of the *Harvard Law Review*. One of the criticisms was that the proposed bill of the committee "will introduce the doctrine of partial responsibility, *i. e.*, the holding of lunatics for part of their crimes." (*Harvard Law Review*, April, 1917, p. 538.) To this criticism Professor Keeley, in his reply, upholds the recognition of partial responsibility, contending that partial responsibility in no way involves partial insanity. He says: "The editor suggested that the adoption of the doctrine of partial responsibility would lead to compromise verdicts when the evidence is conflicting. It is submitted that this result is not nearly so likely to happen as is the acquittal, under the present rules, of a defendant who is known to have lacked some of the mental element necessary for the full crime charged. Illogical verdicts are more likely to result from illogical than from logical rules." (*Ibid.*, p. 554.)

The question of responsibility is closely identified with that of punishment. The two are intimately associated in our minds. Subconsciously our notions about responsibility are influenced by various social, moral, and religious conceptions concerning punishment which are the outgrowth of experience or are the heritage of the past. It is needless to add that responsibility and punishment for guilt must be entirely dissociated in our minds while attempting to solve the question of personal responsibility. Whether punishment is part of the teleological scheme of the universe does not concern us here. We do know that centuries ago, society, for its own protection and on the assumption that all men were responsible, devised a system of punishment for wrong-doers. In earlier days cruel punishments were exacted. Their severity and injustice marked the misconception of the lawgivers who secured their legislative enactment. At first punishment was retaliatory—a squaring of accounts between society and the criminal. Later its purpose was conceived as mainly deterrent. The penologist of the present day insists that the chief aim of punishment is the reformation of the criminal, securing if possible his return to a normal and useful life. While social expediency insists that the criminal shall be punished, the hope is expressed that recognition of individual limitation will receive careful consideration in determining the degree of personal responsibility. Punishment should

be made to fit the individual rather than the crime. The indeterminate sentence facilitates this intention. When the criminal sees a new light, in other words is reformed, the necessity for further punishment ceases. Modern prison reform is based on a rational psychology. At the same time we must remember that punishment does exercise a salutary influence upon the semi-responsible mind, supplying an incentive toward right conduct that does not seem possible of attainment in any other way. A reformatory sentence may prove to be a wiser dispensation for a semi-responsible offender than confinement in an asylum. Such person may require the discipline and the more exacting régime of the reformatory to supply him with initiative toward right doing and stability of purpose entirely lacking in his original makeup. His punishment achieves a therapeutic end. By confining such a semi-responsible in a reformatory the interests of society are conserved, the object lesson upon other malefactors with similar mental limitations is not lost, and the criminal himself receives a possible benefit. If further treatment is required transfer to a hospital for the insane is always possible. Sentimental leniency may prove harmful in the semi-responsible person. It is in such cases that Ballet's conclusion becomes applicable; "the semi-insane individual who has committed a misdemeanor or crime should be both punished and treated at the same time." The potential therapeutic mission of the true reformatory must never be forgotten. For certain defectives the reformatory may be preferable to the asylum.

Responsibility is practically liability for wrong doing. What is the state of mind that makes a person liable for his misdeeds? To be liable for wrong doing a person must be able to reflect upon the nature and consequences of his act, to consider and weigh the various motives leading to its performance, to consider whether the act is merely selfish and thereby harmful to others, whether in fact the act is wrong in the light of the moral, the common or the statutory law, and finally he must possess the power to make a decision in his own mind whether to do or not to do the act. Liability presupposes the ability to exercise reason, apply corrective judgment, and the power to choose between different courses of action. Motiveless acts are evidence of insanity and irresponsibility. (Mercier, *Criminal Responsibility*, p. 156.) The

insane person justifies his action. He cannot think his conduct is wrong, because from all the reasoning at his command he believes that he is right, and what he does must be justifiable. To his impaired corrective judgment the established laws of society make no appeal, nor do they exercise upon his distorted mental perspective any restraining influence.

Responsibility or liability must be measured by the degree of judgment and will power of the individual. These mental states vary in the normal person. Temperament exerts a profound influence upon conduct in the perfectly sane and responsible person. A man with what we say is a normal mental equipment, under the stress of strong passion, may be so upset by storms of feeling as to become the victim of his own impulsivity, still we say he is responsible because he could and should have weighed the consequences, and should have exercised his will-power to control his conduct. Another man with bad hereditary antecedents, brought up in wretched environment, with limited education, absolutely no moral instruction, depraved tastes and associates, and a meager mental equipment cannot be held to the same standard of liability as the former more favored and better endowed individual. In other words identical standards of responsibility do not apply alike to all individuals. Liability varies with the person. The moron, or high-grade imbecile, ought not to be measured by the same standard of responsibility as the normal person, or the low-grade imbecile, or the idiot.

Where shall we draw the line between the wholly responsible and the semi-responsible? The problem is difficult and can only be solved by a searching analysis of the individual case. In this analysis underlying motives must be registered accurately. Bad heredity alone is not sufficient ground on which to exonerate wrong doing. Too great emphasis is not infrequently laid at the door of inherited evil tendencies. Of far greater importance is the character of the judgment, the reasoning capacity, and the will-power of the criminal offender. The defects in these mental processes demand for their detection long continued, intensive study. This end is better secured by commitment of the criminal for observation to a hospital for the insane than by a superficial examination attempted in the ordinary jail. Of especial value is such study in the borderline case, the psychopath, the constitutionally inferior

man, the sexual pervert, any individual that falls short of unquestionable insanity but still exhibits a manifest deviation from normal mind. The records of the criminal courts are filled with such cases. It is in such cases as these that varying degrees of departure from normal mind are accompanied by corresponding modifications of individual responsibility. The sexual pervert who, while holding positions of trust and maintaining a semblance of respectability and religiosity, secretly yields to indulgence in filthy practices until a vicious habit is formed, is certainly more responsible than the old man guilty for the first time of similar practices, whose mind is crumbling in an incipient senile dementia.

When modified responsibility is recognized by the courts as a logical conclusion founded on a scientific psycho-pathology, then the psychiatrist can make to the court a report that is entirely consistent with our present knowledge of normal and abnormal mental processes. He will feel that he is not playing into the hands of the partisan lawyer, but is expressing an opinion founded on sound data. Such conclusion and final report to the court are in harmony with our knowledge of mental mechanisms and their conduct reactions. The alienist, in recognizing modified responsibility and its important relation to conduct, does not stultify himself by expressing opinions which he really knows are inconsistent with sound pathology.

In states still retaining capital punishment the doctrine of modified responsibility is especially helpful. In these communities it not infrequently happens that a homicide is committed by some person whose mentality does not measure up to normal, and who manifestly falls short of full responsibility. The individual may pass the ordinary superficial tests of responsibility, such as knowledge of the nature and quality of the act, whether it was right or wrong, etc., and yet one is satisfied that the prisoner's reasoning powers are so limited, his capacity for exercising comparative judgment is so restricted, that there is a manifest reduction of the will and with this defect a modified responsibility. With capital punishment ever before him, the alienist must either declare the prisoner wholly irresponsible in order that the semi-responsible man may escape a senseless execution, or he must pronounce the prisoner wholly responsible and trust to the hope that executive clemency will in the end save the state from the charge of having

committed "judicial murder." Such paradoxical situations will be avoided by a recognition of the doctrine of modified responsibility. Under such procedure the alienist will make a report to the court that is consistent with the actual mental status of the prisoner. Even with the actually insane person the most intensive study is desirable in order that a definite understanding may be reached as to the extent that the mental disease has invaded the domain of judgment and will-power and to what degree personal responsibility has been impaired.

Recognizing the rational basis of the doctrine of limited responsibility, the following conclusions appear to the writer psychologically consistent, presenting a course—a *modus vivendi* that ought to be mutually acceptable to the court, the jury, and the expert:

I. The physician's competence does extend to the determining of responsibility.

II. Every case is potentially different from every other case, and therefore calls for special individual study.

III. No general inclusive juridical rule can be devised that will fit alike all cases in which the question of responsibility is raised.

IV. The finding of a mental status involving responsibility, irresponsibility, and limited responsibility is based on rational psychology and ought to be logically satisfactory to both the medical and legal professions.

DISCUSSION.

DR. WILLIAM A. WHITE.—Mr. President, I have read a good many papers on criminal responsibility and criminal insanity and all that sort of thing and we always seem to be left where we began, with such discussions. It has helped me to think of it in another way and it might help others. Responsibility does not seem to me as something that can be conceived as resident within the alleged criminal. It is not a property that he has, psychologically or otherwise. It is a label pinned upon him by society represented by the jury. It is the critique of society which it has reached through and by the herd through its representative, the jury; in other words, responsibility does not reside in the alleged criminal, it is the critique of the herd. That is the situation at bottom. And I don't believe we can get a very accurate idea of responsibility unless we are able to think of it in that way and I think that is fairly demonstrated by a number of things.

In the first place, we have many compromise verdicts; we have the jury bringing in verdicts for crimes which the individual could not possibly have committed. Then we have the history of the ideas of responsibility. Originally, there was no connection between the punishment and the individual who was supposed to have committed the crime. Originally, some anti-social act was done. Nobody knew why, or understood how, it occurred and none cared whether the person accused was the one who did it or not. So that society tried to retaliate by punishing an individual for *an* anti-social act; and it was only a later psychological development that let it hitch up the actor with the punishment, and even to-day the question is one that lies with the jury. One individual that has committed a certain class of crime is sure to be executed no matter what is done for him; certain other individuals are certain to be let off no matter what is said by the prosecutor. So that in reality the jury looks over the situation, they apply the law of love or hate as they may be influenced by it, and, if they feel that the prisoner ought to be exterminated, they say he is responsible. If, for any other reason, they think he is a proper object for sympathy, they say he is irresponsible and "we will let him off." So if we can say that it is an end by which retaliation or sympathy may be attained it will enlighten the whole situation very much.

DR. HARRIS.—Mr. President, this subject is one about which I feel very strongly, and, consequently, I was greatly delighted to hear the paper read and to listen to the ensuing discussion. My attitude toward this class is that no case should go before a court until a proper mental study has been made to determine the actual mental status. When we are able to get the communities and courts to operate with the medical profession in this way, we shall arrive at the point where we can fit the punishment to the crime. We should not try to punish the individual for the crime committed until we have given the proper attention to the intellectual development. In order to bring about the greatest good, of course we should begin with the proper study and training of children in early life and follow them through their school days—in other words, the application of proper mental hygiene in the development of the individual, and it appears to me that this is the only way in which we can determine the best course to pursue in regard to the ultimate disposition of any delinquent case.

DR. BANCROFT.—Mr. President, the thought has often occurred to me that the alienist in expressing his own opinion in certain cases could voice his own mental attitude more satisfactorily by a return to the court of sanity or insanity, as the case might be, with a possible accompanying mental reservation of modified or weakened responsibility. By such qualification the alienist does not subscribe to an impossible arbitrary line of demarcation between different mental states, between entire sanity and entire insanity, neither does he seem to be catering to the

views of possibly partisan and prejudiced counsel who in their zeal desire to force the physician to an expression of a radical opinion.

The speaker has had occasion this very spring to give evidence in a case of premeditated murder in New Hampshire. The murder was committed by an individual who might possibly be called a moron. The crime was evidently premeditated, and of his own voluntary part in the homicide I was quite satisfied.

The prisoner was able to pass an intelligence test of only about 11 years of age, but his crime was a deliberately planned and cold-blooded, vindictive act, undertaken and carried through with clear understanding as to its nature and consequence. With a bad heredity, a poor home environment and bringing up, and an evident weak power of control, the question of modified responsibility very naturally occurred. The prisoner himself clearly recognized his plight, was extremely anxious to escape execution for the sake of his young son, and was anxious to plead murder in the second degree. This plea was the result of conferences between counsel for the defense and counsel for the state brought about by the speaker. Both the state and the defense finally accepted a condition of modified responsibility as a fair representation of the prisoner's mental capacity. A verdict of murder in the second degree, a long term in the state prison, satisfied the ends of justice, and was willingly accepted by the prisoner. The recognition of weakened responsibility—the logical sequence of a mind slightly deviated from the normal, became in this particular case a satisfactory disposition of a somewhat perplexing problem. Execution of this man would have been nothing better than judicial murder. Confinement in a state hospital would have defeated the aims of justice by classifying a semi-responsible with the entirely irresponsible. The middle course pursued became in the end the most logical and the most just course to the prisoner, the public, and the court.

THE NEED OF CLOSER RELATIONSHIP BETWEEN PSYCHIATRY AND THE MEDICAL SCHOOLS.*

By MAJOR ARTHUR H. RUGGLES, M. D., M. O. R. C.,

Butler Hospital, Providence, R. I.

We are now in a period of educational reconstruction, and at such a time it may not be amiss to suggest methods of teaching that will be of service in the changing order of things.

Nine years ago, there were in the medical schools of this country, a little over 25,000 students. In 1916 there were approximately 15,000 and I need not remind any member of this society that in those eight years the positions open to graduates of our medical schools have almost doubled. The contemplation of this question of medical demand and supply is a most serious one, but it is not with that question that I am now dealing. Psychiatry to-day needs a greater number of men in its ranks and these men should have the best possible training for their specialty. It is concerning the ways and means of attaining this end that I wish to engage your attention.

What field of medicine offers more or wider opportunity in the immediate future than ours? The development of neuropathology and serology, the relationship of the ductless glands to the nervous system, metabolic studies, shell shock and other war psychoses, a splitting up of some of the large groups of mental diseases into more accurate subdivisions—all these subjects show the magnitude of the work to be done. What can be a greater incentive to the ambitious medical-school graduate than a field of endeavor in which there is so much new work to be undertaken? We are still in the formative period of diagnosis and when we have developed to the point of accuracy attained by those studying chest or abdominal conditions, what a new field of treatment will open before us. And the men that become interested in this branch of medicine, should they not start with a better psychiatric equipment than was obtainable for most of us? Having then established my premises, namely, that it is desirable to interest more men in psychiatry and that these men should have the best possible equip-

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ment for their chosen work, I wish to offer for your consideration the following suggestions: 1st, the need of a higher and more uniform standard of psychiatric training in our medical schools; 2d, the requirement of psychiatric knowledge for state registration; 3d, the dissemination of knowledge of the psychiatric opportunities to the men in our medical schools; 4th, better opportunities for post-graduate study in psychiatry; 5th, introduction of case-teaching system between medical schools, institutions and the specialist in private practice.

THE NEED OF A HIGHER AND MORE UNIFORM STANDARD OF
PSYCHIATRIC TEACHING IN MEDICAL SCHOOLS.

A study of the required courses in psychiatry in the leading medical colleges of this country, shows a widely differing standard of teaching. A few of the schools provide courses in which, besides the usual didactic lectures and clinical demonstrations, the student must himself examine patients—a very few of these schools make these practical courses compulsory. Two or three schools provide opportunity for the fourth-year men to study and examine carefully a number of cases. This should be a requirement in every class A medical school.

Together with the lectures already provided in most of our schools, should be offered better teaching in normal and abnormal psychology. This, of course, is the function primarily of the college, but coöperation between medical-school teacher and psychology professor might lead to better preparation of the student for his medical-school courses dealing with disease of the mind. Several of our medical schools give courses in "Psychology as related to Psychiatry" and this should be followed by all. Neuropathology now has a place in the curriculum of practically all schools, but many fail to require each student to study the lesions of the important nervous and mental disorders under his own microscope, and this is essential to a thorough understanding of clinical psychiatry. We would not expect that physician who has never examined a diseased chest to recognize incipient tuberculosis in his patient, and yet we wonder that mental cases coming under the care of the specialist are usually far from incipient, although we know that a majority of the medical men coming from our schools have carefully examined a half dozen cases of mental disorder.

And how are we to get our cases early if the general medical practitioner is not trained in the recognition of the early symptoms? It is a *sine qua non* that the teachers of psychiatry shall have at their immediate command a wealth of psychiatric material, and this can of course best be accomplished only if they are connected with a modern psychopathic hospital.

Another course that should be found in the medical-school curriculum available for the man desiring to enter the field of mental medicine, is one in mental hygiene that shall deal with the factors causing mental disorder, their prevention and the treatment of pre-psychotic symptoms. Such a course should include practical instruction in methods of testing the degree of mental development and ways of training the mental defective. The day is not far distant, I hope, when the medical school offering less than the work I have briefly outlined, will be considered a second-rate school.

THE REQUIREMENT OF PSYCHIATRIC KNOWLEDGE FOR STATE REGISTRATION.

At the present time the state board examination that asks a question concerning mental disease is a rarity. A physician who has never seen a case of mental disease can pass the examination for registration in medicine in any state in the union, and yet we wonder that many cases of mental illness have been under treatment by their physician for many months before the nature of their malady is even suspected.

Certain foreign countries require a whole day given up to examination in the knowledge of disorders of the mind, and yet this country devotes not even five minutes to this requirement. Is a reform in this direction not necessary before psychiatry can expect to come into its own?

DISSEMINATION OF KNOWLEDGE OF PSYCHIATRIC OPPORTUNITIES TO MEN IN MEDICAL SCHOOLS.

With more courses added to our curriculum and with many of these required, it is obvious that a greater number of men will have an interest in psychiatry aroused, but I think that more than this should be done. We see more and more of what is called ethical advertising, which is nowadays done in a thousand different

and effective ways. Should we not put before the medical student in his first year an outline of the purpose of the courses in psychiatry, and follow that up with talks by members of the department concerning the many opportunities open for a man having a desire to specialize along this line? Furthermore, the opportunity for research in this branch of medicine should be presented to the second and third year students, and institutions should open their doors to men who have had two or more years in the medical school, for work during the summer months, as laboratory assistants or clinical clerks, and should make these positions attractive by some financial return. It is only by getting men actually in touch with our work and its opportunities before their medical career has actually been entered upon, that we can hope to attract any increasing number of men into the work.

BETTER OPPORTUNITIES FOR POST-GRADUATE STUDY.

Not infrequently a man goes into general practice and in a few years wishes to specialize. Perhaps he would like to do mental medicine, but sees no opportunity to get special training in this branch in any nearby city, while there are plenty of courses or opportunities offered, training him in pediatrics, laryngology, otology, surgery and many other branches of medical science.

With the establishment of modern psychopathic hospitals, such training can be and has, in a few places, been offered. Every medical school should provide organized post-graduate work in neurology and psychiatry, so that a medical man could take a year or eighteen months' course providing adequate instruction and the opportunity to diagnose and treat a great number of cases of nervous and mental disorder. Such a course should be made as intensive as possible, providing definite work in the laboratory, wards and out-patient departments, and freeing such post-graduate students as much as possible from the routine work involved in administration problems.

INTRODUCTION OF CASE-TEACHING SYSTEM BETWEEN MEDICAL SCHOOLS, INSTITUTIONS AND THE SPECIALIST IN PRIVATE PRACTICE.

The method of case-teaching, as carried on at the Massachusetts General Hospital by sending case records to a large number of subscribers, might well be instituted by some psychiatric center.

What a boon it would be for many of us to get each week the abstract of cases presented at staff conferences, with the different medical opinions upon them, and where the case has come to autopsy, the report of the pathologist! In this way new methods of examination and treatment could be disseminated among us. New points of view regarding psychoses could be gained, and these case reports would serve as a most valuable method of instruction for medical-school classes in psychiatry and for the younger as well as older members of hospital staffs, and also for the private practitioner who does not see the great number of cases of mental illness that the man in an active state hospital does. I can readily see where a year devoted to case-teaching, dealing with the differential diagnosis between early cases of manic-depressive insanity and dementia præcox, would be of the greatest value to us all. The hospital conducting such a course might well invite reports of cases from various institutions and take those which are best worked up and of greatest instructive value to add to those that they shall send out. In this way each one of us by paying a modest fee could have access to from 100 to 200 cases a year. Each case illustrating points of interest in differential diagnosis, new methods of examination or treatment, or mistakes in diagnosis as shown in the autopsy room or by the unexpected termination of the case in recovery or dementia.

In closing, should not each one of us undertake the task of encouraging well-trained medical students to enter psychiatry, to raise the standards of psychiatric teaching in this country, to stimulate a greater coöperation between those working in mental medicine and to help in a wider dissemination of psychiatric knowledge?

DISCUSSION.

DR. BANCROFT.—Mr. President, it seems to me almost a pity that so important a subject should go by without any discussion or remark. I believe that the Doctor has well emphasized the necessity of a closer relationship between our specialty, psychiatry, and the medical schools. I don't know whether this Association has ever made any definite attempt to enlist the interest of the medical schools in this particular branch of medicine or not, but I believe that sometime this Association should take up the matter in earnest. It seems to me that the suggestion made that psychiatric examinations should play some part in the securing of state registration would be one way in which the medical schools and the general medical practi-

tioner might become interested in the importance of psychiatric training in their medical studies. In the rural districts I believe that a better psychiatric knowledge would be of great benefit to the general practitioner. In the large centers, of course, this particular branch of medicine is cared for by the specialists; but in the country, in the state which I represent, at least, there is a lamentable ignorance on the part of the general practitioner as to the general fundamentals of insanity; and yet the general practitioner is brought into close contact with this specialty in his daily practice in the rural district. There are many important questions coming up in the proper conduct of the case in the private family in the country where such training would be of greatest value, not only to the physician himself in handling the case properly but also in giving proper advice to the family. I believe, Mr. President, that this is a very important subject and sometime—I hope not far distant—this Association will impress upon the medical schools the importance of emphasizing a broader training in psychiatry, and I know of no better way than by making psychiatric examinations one of the important essentials in the conferring of state registration.

DR. LOCKE.—Mr. President, this matter is of particular interest to me as a teacher, and I think possibly it may be to others who are so engaged. If I may, I will add a few words to what has already been said in setting forth a few of the difficulties which come to the teacher, particularly one who is teaching in a college in the rural districts like my own—the Syracuse University. Of course, the work in connection with the state hospital is of very great value in demonstrating mental diseases to your students, but the trouble with the state hospital is that the cases there are manifestly developed. They may be problematical in regard to the etiology and in regard to the diagnosis. Now, that is not what the practitioner in the country districts needs so much. What I try to teach the student as he leaves the college is to the end that he may be able to recognize mental disease in its earlier stages and in order that he may intelligently direct whatever is necessary and desirable to reduce the mental morbidity of the district in which he practices. Now, the state hospitals are, of course, extremely helpful; but it is in the psychopathic clinic—where the incipient cases appear—that our instruction is, I think, of very great importance, and it is in this connection that I would like to have any assistance of a practical kind that anyone can give me. I have a psychopathic clinic. We have a dispensary—a modern, fully equipped dispensary—at Syracuse. The patients are admitted to the various departments of the dispensary by the registrar, or through the office with which he is connected, and the diagnosis is very largely made by him. A patient comes in and says he has stomachache, or back ache, or sees double or something of that sort and is referred by the intelligent office assistant to the gynecological, orthopedic or ophthalmological class; that is, he is referred to whatsoever class his own localization of his disorder may indicate; and very much of the time the patient stays there. The older men who are in charge of these departments, and who have had no training in psychiatry, treat a group of somatic symptoms of a purely

psychotic foundation. My students tell me that they can go into the other classes and get sufficient material to fill my class to overflowing. Patients are being treated for all manner of difficulties which, as a matter of fact, they do not have. The problem is—just how may we round up this material which is passing through the admitting office of every dispensary and divert it to the psychopathic clinic where it may be used for instruction purposes; particularly, to demonstrate the earlier manifestations of mental disease. We must so instruct our students that they may be able to discover and comprehend the incipient symptoms of mental disease when they find them—on the farm, the active business house and in the dispensary. It is here that we must hope to obtain the best results from instruction rather than in the observation of the completely developed product which largely obtains in the state hospitals.

DR. HARRIS.—Mr. President, I have been much interested in Dr. Locke's description of his troubles, in relation to material furnished by the state hospital, and in connection with the troubles the students are likely to encounter when meeting with cases in general practice. It is very true that the family physician first comes in contact with patients showing mental symptoms and that it is therefore all the more reason why the medical schools should teach psychiatry, the most important branch of medicine. The study of this disease and its treatment should be made a subject of special attention in the medical colleges, and then it seems to me we would not have the great trouble about which there is so much complaint. I think it unfortunate that the disposal of cases coming into any dispensary is left to a clerk rather than to a physician, who at least has some knowledge of medical conditions.

DR. RUGGLES.—Mr. President, I was interested in looking up the amount of teaching coming along these general lines in different schools to find just what they were doing and I was struck with this fact, that the best schools are apparently fully meeting the needs of the situation. The teaching has become much more intensive, the instruction has become much more active, and the problem is being well dealt with. However, of the 90 odd medical schools in the country a majority have not provided anything like adequate teaching in psychiatry and that is the point I wanted to emphasize. While the best schools are already doing this work, there are a lot of schools that are not doing it and they should be influenced by the opinion of a society like this into doing it. Dr. Locke's point, as to getting other material for teaching, would seem at least in a measure to be nearly met by the observation hospitals where the early mental cases are sent for mental observation, not only for the protection of the public, but also for this very purpose of teaching a knowledge of mental symptoms to the students. I am sure that a number of those who work in psychopathic hospitals will say that these hospitals are securing a great amount of material for teaching and in addition the general hospitals have a great number of cases of this kind for the medical student.

PSYCHIATRIC PROBLEMS AT LARGE.*

By AARON J. ROSANOFF, M. D.,

Kings Park State Hospital, Kings Park, N. Y.

On July 1, 1916, an enumeration of cases of mental disorder, both in and out of institutions, was undertaken in Nassau County, New York. A method was applied which was calculated to bring to light more especially cases of sociological significance. These cases were, however, also studied from the medical viewpoint, so that eventually the material that had been gathered came to be classified in a twofold manner, according to a medical and a sociological classification.

The investigation was conducted by a method consisting essentially of two stages. The first stage consisted in securing *leads* to cases of probable mental abnormality in the county; and the second, in efforts to secure *data* concerning these cases sufficient to establish the abnormality, if it indeed was there, and to determine at least roughly its nature.

The main sources of leads were as follows: (1) lists furnished by the State Department of Charities, Eugenics Record Office, and Nassau County Association and other charitable organizations in the county; (2) the records of the overseers of the poor; (3) the records of the justices of the peace, police justices, and the district attorney; (4) the records in the county clerk's office of divorce and separation proceedings; (5) lists furnished by neighborhood workers, district nurses, truant officers, clergymen, old residents, and other persons; (6) lists furnished by practicing physicians; (7) cases examined in state hospitals and public and private charitable institutions and in penal and correctional institutions, and (8) cases found in the elementary public schools.

The near relatives of all "abnormal" persons living in the county were also investigated, and among them were found many whom we classified as mentally abnormal and to whom no leads were available from any of the above-mentioned sources.

For purposes of control four districts in the county were selected for intensive investigation by a house to house canvass intended to

* Read at the seventy-third annual meeting of the American Medico-Psychological Association, New York, May 29-30-31-June 1, 1917.

subject every resident to examination ; the total population of these four districts is 4668.

The findings may be summarized as follows: In all 1592 "abnormal" individuals were found. These figures are exclusive of the data gathered in the schools, for the collection and study of which separate provision was made through the cooperation of the United States Public Health Service.

The total population of the county, according to the last census, made by the state in 1915, was 115,827. On this basis the percentage of mentally abnormal persons in the county is found, by calculation, to be 1.37. By including an estimated number of abnormal children found in the public schools, based on data furnished by Surgeon Taliaferro Clark who was in charge of that part of the work, the percentage would be 1.72.

Clinically the "abnormal" cases may be divided into four main groups, as follows:

Insane	394
Epileptic	72
Feeble-minded	634
Constitutionally inferior (inebriates, criminals, prostitutes, chronic dependents, etc.)	492

Not all these cases, by any means, would require institutional treatment—according to the judgment of the medical officers of the survey, only 59.4 per cent. Moreover, for many of the cases, institutional treatment is already available; this is true especially of the insane and, to some extent, of the epileptic and the feeble-minded.

The survey has shown very clearly that for the bulk of cases presenting psychiatric problems, the benefit of psychiatric study, judgment and treatment was not available. These cases are now in the hands of the police, justices of the peace, overseers of the poor, church and private charitable organizations and general medical practitioners.

Similarly, psychiatric problems in cases among school children are left without attention, or, seemingly, even deliberately avoided. The medical examination of children in schools takes into account height, weight, chest expansion, eyes, ears, nose, tonsils, teeth, etc., but not mental condition. Save by way of rare exception, where a special class is provided for retarded children, mental abnormalities or peculiarities receive no attention on the part of the educa-

tional authorities. This is prejudicial not only to the interests of the abnormal children but of the others as well.

The fact is, that the psychiatric basis of many cases of retardation in school, criminal tendency, inebriety, drug habits and pauperism is hardly recognized even by medical practitioners. It is, I think, owing to this circumstance that mental clinics, especially in rural or semi-rural places, have heretofore failed to realize their full possibilities for service.

The usual practice has been merely to organize a clinic and to open its doors to those who would, of their own accord, seek psychiatric advice, or who would be sent or brought to the clinic for that purpose by their relatives or physicians. At some of the clinics attendance has seemingly depended on advertisement, falling off rapidly when advertisement was not kept up.

The great problem, evidently, is to bring to the clinic cases which are of a psychiatric nature, but not necessarily recognized as such by general practitioners, by laymen, or by the patients themselves.

Perhaps the best plan would be to organize a system of cooperation between the mental clinic and public authorities who have to deal with problems of social maladjustment, such as often arise on a psychiatric basis: (1) school principals having to deal with retardation, truancy, unruliness; (2) justices of the peace, police justices, district attorneys and county judges having to deal with crime, inebriety, vagrancy, prostitution, etc.; (3) overseers of the poor, county superintendents of the poor and charitable organizations having to deal with dependency.

In large urban centers it is perhaps not so important, though none the less desirable and advantageous, for an out-patient mental clinic to establish such connections; the functions of the mental clinic are vicariously performed for the police, the courts, the schools and charitable organizations by neurological clinics, by "clearing houses" for mental defectives, or by psychiatrists especially employed for such purposes. In rural or semi-rural places no such assistance is, as a rule, available; and, when made available through the establishment of a mental clinic, is not apt to be made use of to any great extent in a spontaneous way, as the communities have not yet been educated to the point of discerning a psychiatric problem, as such, where it exists.

The experience of the Nassau County Survey has shown in a most striking way that large opportunities for psychiatric service would develop if the medical staffs of the mental clinics would undertake regular inspections of schools, almshouses, charitable homes, jails, penitentiaries, prisons, etc.

It has been customary heretofore to hold out-patient mental clinics at stated regular times, either fortnightly, or weekly, or perhaps somewhat more often. This does not afford an opportunity for psychiatric consultations which may be sought in the intervals. In order to provide such an opportunity, each state hospital conducting an out-patient mental clinic should arrange for the psychiatric examinations of persons brought to it for that purpose at any time, and the law should permit the detention of such persons for observation for a period of 10 days upon an order of a magistrate.

As it is not always convenient or even possible to bring patients either to the out-patient clinic or to the state hospital, some provision would seem necessary whereby a state hospital would be ready at any time to send a member of its medical staff to any part of the hospital district for psychiatric consultation upon the request of a proper authority.

It is not to be assumed that even such an organization of out-patient mental clinics as is here advocated would provide fully such psychiatric service as the communities need; it would merely place the state hospital in closer touch with psychiatric problems arising at large in its district, and make available for the community unrestricted psychiatric consultation and advice. In order to make possible for the state hospitals to render remedial service in full measure, as needed they must somehow be empowered, in the first place, to furnish, through social service, relief from unfavorable environmental conditions, financial difficulties, unemployment, etc., which often appear as the direct cause of the social maladjustment; and, in the second place, to provide early institutional treatment for the cases in which it might seem necessary.

The first of these requirements would perhaps be fulfilled through such coöperation on the part of the poor law officials and charitable organizations as is described above.

The second could be met only by increase of institutional capacity. To-day, even in the most highly organized states, the crying need in the sphere of mental hygiene is for increase of

institutional capacity. The state of New York, for instance—one of the foremost in the union in this respect—had, in 1910, 396.3 persons in institutions for the insane, epileptic, feeble-minded, etc., per 100,000 of its general population. The material brought to light in the course of the Nassau County Survey shows that, by a most conservative judgment, the state could double its institutional provision without the slightest danger of such increased provision proving to be in excess of actual needs.

I wish, before closing, to refer to a valuable by-product that would develop in the course of the growth of the out-patient clinic, if organized according to the plan here advocated; namely, a register of cases of mental disorder, if not complete, at least including all those cases which are of sufficient sociological import to have become the concern of public authorities. The records accumulated by the clinic would gradually develop into such a register.

Judging from the results of the Nassau County Survey, it may be anticipated that after several years' development such a register would show that the bulk of all crime, vice, dependency and other social maladjustments in a given community is attributable to a comparatively small fraction of its population. It stands to reason that problems presented by such evils could be much more successfully attacked with the aid of material that would be available in such a register than without it.

DISCUSSION.

DR. WILLIAM A. WHITE.—Mr. President, the papers that I have listened to recently have been rather confusing, although Dr. Swift seems to have digested them all and to agree with everything that has been said. Dr. MacDonald apparently predicts a time when psychiatry shall be doomed. There will be no more classes nor can we speak of them because that involves classification. Dr. Swift, therefore, won't be needed in those days; he will be eliminated and his methods of speech education shall be cast summarily away. All of which reminds me that language, after all, has a function, one part of which is to convey ideas, to put them in terms of dynamic psychology, to transmit energy. With all due apologies it has a function. Classifications are no good if the classifications run the individual who makes them, but those with some idea of values have thought it possible for some at least to run the classifications.

I rise to say particularly that I was very much pleased with Dr. Rosanoff's paper. The work done in the survey of Nassau County is a most admirable work and it is no particular abuse of language to tell what it is finding

out and to classify the different grades of behavioristic maladaptations which it finds, not for classification alone but in endeavoring to *do* something with the problem; and that, after all, is what we try to do whenever we endeavor to classify our mental material in some sort of way so that it can be acted on effectively. Such a survey as this one of Nassau County gives us a rough approximate study of the social inadequacy which exists. It gives us the degree of social inadequacy and whether it is worth while to endeavor to do something with it or not; and whether we can agree with him on a program or not we can say that it is no iconoclastic tirade against something, though not clearly understood, but something that can be made of value if some one wants to do it.

THE AIMS AND MEANING OF PSYCHIATRIC DIAGNOSIS.*

BY ADOLF MEYER, M. D., BALTIMORE, MD.

Strangely enough, at a time when all the other branches of medicine have exchanged discussions of classification for intensive work on the facts with which they deal, psychiatry is still considerably wrapped up in considerations as to what its diagnoses should attain.

Fifteen years ago, I opened a discussion of recent problems of psychiatry with the following paragraph:

Most text-books of psychiatry show plainly an effort at harmonizing one's daily experience with that which one may consider the safe scientific generalization of the age or of the individual. Some writers do it chiefly for didactic purposes, in order to shape the mental attitude of students; others more especially because their experience is continually fermenting in them, and demands an orderly arrangement in order to give them peace and satisfaction. In any such effort we may distinguish those whose tendency goes more in the direction of harmonizing the facts of experience with a "science" which they consider established and having a set form, while others set the facts of experience foremost, and adapt the order of the science to their *needs*. The large number, of course, of those who practice the specialty are on free empirical ground—persons who are more or less professedly, and perhaps with preference, without system, and get along best without taking a definite stand of their own on general questions, and who, if they be teachers, render the general consensus without any special interest one way or another. (Church & Peterson, 4th edition, 1903, p. 650.)

To guide the student—and one's own work—as directly as possible to the facts which really can be studied and worked with and which are the safest expression of the nature and depth of the disorder and of the points of attack for any treatment—this, to my mind, must be the ideal of teacher and practitioner and investigator alike.

On the other hand, any system which aims mainly at the traditional accumulation and enumeration of "symptoms of disease-entities," if it does not bring out the points mentioned above,—*i. e.*, the nature and depth of the disorder, the factors at work and the points of attack for treatment—tends to create entities for mere

* Read at the seventy-third annual meeting of the American Medico-Psychological Association, New York, May 29-30-31-June 1, 1917.

identification and from there on to suggest mainly deductive reasoning. One thinks of the disease in general and not of the facts presented by the patient, and reasons from that more or less abstract something or assumed entity.

There are, to be sure, fields in which the worker must be willing to run a risk, to run ahead of his facts, to shape his aims for what he wants to attain rather than according to the facts at hand. We must have the courage of hypotheses. I do, however, feel that this should be encouraged chiefly among trained workers and where research is stimulated, and not in the systems which are to be the equipment of those who are mainly students or practitioners.

Our facts and our ambitions lie in the *structural* field or in the *functional* field of *description*, and in the fields of *etiological* or *causal interpretation* and the fields of *prognosis* and of *treatment*. Let us consider the first, *i. e.*, the condition of structure of the nervous system and especially of the cerebrum, and of the sensory-motor equipment and of the vegetative and regulative mechanisms of the body, *i. e.*, the internal secretion organs, the foci of infections, etc. Whatever facts we can get in this *structural* level of observation are undoubtedly most dependable, controllable, and lasting. Sometimes, they are a *complete explanation*, where we can reproduce them experimentally, as in beri-beri; or they may be empirically clear enough and safe, as in parenchymatous syphilis or paresis, where we feel sure that the histological findings have precedence over any other form of examination in ultimate dependability; or in the senile processes, although there the principle is not so clear; or in epilepsy, which leads us to still more uncertain ground. Yet many of us feel less certain that we might always be able to mark off paresis from the mesoblastic and less insidiously progressive cerebral syphilis than we did 20 years ago, although the rank and file of the cases still are best judged with the structural concept or lesion type in the center of our thought, as long as the *intra vitam* reactions tally so closely with the histological returns.

Pragmatically, the structural supremacy would be accepted as clearly established where we might declare ourselves willing to trust the study of a sample specimen of tissue taken from the living patient as is done in cancer and of late in the study of the thyroid. Where this test is not considered dependable, we might do well to turn to a functional pathology, either in the form of reactions of

the body-fluids, or in the form of various functional tests, including glandular, neurocerebral and psychobiological functions.

This second—the functional—field might roughly be divided into the physiopathological and the psychopathological ones, at least if we agree on certain revaluations of these terms, as was done in my article on objective psychobiology in the *Journal of the Am. Med. Assoc.*, September 4, 1915.

In the physiopathological sphere we may distinguish the serum-reactions, in which we really withdraw a sample of the fluid body-tissue for structural or chemical tests or for biological study, as in the complement fixation and Abderhalden reaction and the like; or we may subject certain functions of the organism or of parts either to tests in the way of establishing certain conditions, such as pulse, temperature and respiration curve, the gastrointestinal and secretory and metabolic regulations, or in the way of pharmacological tests as in the study of vagotonia, sympathicotonia, etc. With all the general progress of late years, the physiological or physiopathological chemical tests have hardly obtained a leading position except in a limited sphere and for the determination of part-disorders, as in the measuring of emotional trends by the blood-sugar and the like. The serum-reactions and biological tests have been more fruitful. The field has, however, hardly been touched in the most promising line, viz., that of experimental-preventive pathology; and the problem of internal secretions unfortunately still is the ground on which an undue amount of speculative guesses obscures the lines of safe and well-controlled work.

The psychopathological field has really the most remarkable strides to record. Since the analytic-synthetic dynamic viewpoints have asserted themselves, the psychopathological problems of man lie before us in a much more humanly comprehensible form. Not only the so-called psychoneuroses or minor psychoses, but also the more bewildering and apparently unintelligible types dissolve themselves to a far-reaching extent into reactions not so foreign to normal human experience. We find not only "method in the madness," but many common links with the normal, where the passing generation vainly sought for exclusive salvation in the urine and fæces, and in the sham comforts of neurologizing tautologies. With critical work on the facts and a little less quibbling over pet theories and a little less vituperation of the contrary-minded, we can to-day show the student and the patient

material that leads us into the midst of where things happen. Even simple description of the overt and implicit activities of the patient takes us a long way towards an understanding of what is right or wrong in the condition, and towards the third viewpoint of prominence, the *etiological*, that of the *causal and experimental interpretation*.

This is undoubtedly the ground of *real pathology*, *i. e.*, the ground of real explanation of disease. The chief gain we have to record here is the gain in tolerance of the *multiconditioned character* of all the conditions with which we deal. We always have to reckon with at least two factors, the more or less *specific* causal agent and the constitutional make-up; indeed, merely to mention the latter forces us to accept a multiconditioned experimental equation. We cannot speak of alcoholic insanity except as a general group of a multiplicity of disorders in which alcohol plays its various rôles; we cannot speak of syphilitic and parasyphilitic disease any longer without much more additional qualification; even a simple brain injury or an emotional difficulty must be studied as one of many dynamic factors, and the upshot is the recognition that a purely etiological explanation is either too summary in many of the cases, or it is too complex to be practical.

This is why, ever since Falret and Kahlbaum, the combined descriptive and etiological and structural conceptions have been welded into "clinical entities," entities for bedside use, with varying sagacity and reserve. To-day, the majority stands under the standards of German nosology, and, with the good old tradition, physicians and students sort out the *patients*, not the facts, and label the men and women as cases of "manic-depressive insanity," or "dementia præcox" and a few other entities, created by Kraepelin in a fit of indignation against Ziehen, and praised to the world owing to the prognostic virtues and ultimate simplicity of his nosological schema.

To bring in prognosis as a leading feature in a nosological system is about as wise as to bring the issue of religious denomination into an election. Even the cock-sure attitude about paresis is wavering. We still have reasons to remember Stanley Hall's bright taunt, that those who talk so glibly of dementia præcox should call paresis thanatic or deadly dementia (*Adolescence*, Vol. I, p. 305). I, for one, am determined to subordinate the prognostic verdict to the inquiry into a more constructive question,

that of the problem of therapeutic modifiability, which in turn is subordinated to the study of the working of all the dynamic factors and the structural and functional descriptive facts. Looking over my experience with this in view corroborates an early impression that few patients have but one abnormal factor working in them. That which is *one big calamity*, one disease, resolves itself usually into groups of facts none of which is *the unique* and unequivocal cause or force "back of it all"; but each combination has its dominant feature and subordinate features open to study, and some of them open to therapeutic readjustment. And since we are far from omniscient, we do well to ask: Will our salvation come from any unitary Kantian *Ding an sich* or *noumenon*, that which is back of the practical nosological *entity*, apt to be made a starting point for deductions, or from a better grasp on that which we can work on and not merely *think* about?

I do not share the holy horror of the *Ding an sich* or *noumenon* entertained by some people. It is well that we should have our concepts and words for the totalities even if they never can be fully realized as wholly indisputable entities. For both scientific and practical purposes, is it, however, wisest, as I said at the outset, to choose one's noumena or ideal entities and bedside terms as closely as possible to where one actually can work, to choose them where their help is needed and not to sacrifice our progress to the old notion of unitary one-name "*diseases*" where *many* facts call for consideration. While, in a way, I look for what is back of the surface, that which is back of it all in the sense of being the essential and fundamental fact really answers better to the call: What is there *in* it and what is there *to* it?

Hence, where structure expresses my facts, I bow to structure, and I bend all my energy upon an understanding of the conditions which explain and can—or cannot—modify that structure. If structure is subordinated, the mere necessary *background of the battle*, not well known, or only incidentally affected, I turn to the battling elements.

In order to be able to draw upon all the helpful elements for the understanding and handling of the condition presented by a patient, I force myself first to get my facts concerning the total-reaction or reaction-type or reaction-complex, whether it is organic, or toxic-delirious, or affective, or paranoic, or a benign or a malignant substitutive process, or a constitutional defect or

perversion, or a mixture. The reaction-complex is *then* qualified by the statement of the etiological or dynamic factors at work; it is next weighed for the possible structural involvement and the therapeutic opportunities, and the prognosis; and, finally, according to whether the case does or does not coincide with a well defined practical type, it is *classed as identical with, or akin to, a standard unit* such as we keep for our statistics and for elementary teaching.

One thing is certain. We have to get away from the idea of "one person one disease." Where would general pathology stand if it had to conform to the reports of the so-called cause of death without qualification? That our own committee on statistical classification should at this late hour have sworn allegiance to the German dogma without provisions for mixed and merely allied types, was a somewhat distressing surprise. Fortunately we still constitute a free country and have reason to hope that if a cause is just it will ultimately find a majority.

DISCUSSION.

DR. ABBOT.—Mr. President, the paper that I expect to read to-night takes up in part the main points which Dr. Meyer raises. I will not now touch on them but will speak of a minor matter. He speaks of not finding the "allied to" categories in the classification of the Committee on Statistics. The phrase "allied to" means that we are not sure of the diagnosis but think the cases probably belong to the classes to which we call them allied. They are really undiagnosed and it seemed better to call them so frankly. Hence, the "allied to" categories were omitted from the report.

DR. MEYER.—Mr. President, I would like to say in reference to Dr. Abbot's explanation that undiagnosed and over-diagnosed might perhaps be two classes that he referred to. That at least would characterize quite a number of cases. To speak of the case as undiagnosed because it contains more factors than the pigeonhole scheme contains would be both disastrous to the attitude and conviction of the physician and ultimately to the welfare of the patient.

A STUDY OF SELF-ACCUSATION.*

By EARL D. BOND, M. D., PHILADELPHIA, PA.

In choosing the topic self-accusation, I have had in mind, on the one hand, certain limitations of some students of psychiatry, and on the other, certain characteristics of the symptom itself.

There are some physicians engaged daily in the treatment of mental diseases who are slow to make up their minds. They are open to the winds of opposing arguments—interested, for example, in much of what they read about effects of disturbed internal secretions and at the same time ready to listen to Dr. Gould as he describes the results of eye strain. It is exasperatingly true that much of the time they are left without a ready formed conviction with regard to the particular issue. They claim that their convictions come only with unforced testimony from unselected material. To such minds this paper is offered in the belief that nothing in it will force them to leave their advantageous positions in the middle of the road.

The symptom self-accusation is deep enough because it at once raises the question of self against self, of a part of the personality repugnant to the total personality. It is common enough without being too common; it tends to occur in accessible patients; and for these reasons it is a manageable symptom. And it is accessible to the normal mind.

In every day life we see men of high achievement reproaching themselves for the lowness of the mark which they have hit. Periodically we see women who have done more than their share of work blaming themselves for lack of strength to do more. Arnold Bennett says of Rachel¹: "She had the impartial logic of the self-accuser. At intervals the self-accuser was put to flight, only to return stealthily and irresistibly. . . . The self-accuser and self-depreciator grew so strong in her that Louis' conduct soon became unexceptional—save for a minor point, concerning the theft of five hundred pounds from an old lady She, Rachel, was an over-righteous prig a blundering fool Then the tide of judgment would sweep back and Rachel was the innocent martyr and Louis, the villain."

*Read at the seventy-third annual meeting of the American Medico-Psychological Association, New York, N. Y., May 29-30-31-June 1, 1917.

In Sunday life the feeling of guilt has greater sway: in the confessional, where many unsinned sins are related, and in the hymnal. We sing:

"Weary of earth and laden with my sin,
I look at heaven and long to enter in,
But there no evil thing may find a home—"

"Lord, I am guilty, I am vile—"

"I would not live alway thus fettered with sin
Temptation without and corruption within."

It has been a pleasure to find that the best descriptions of the twilight zone between psychological and psychiatric data, with reference to general self-accusation, have been written by two of my friends.

Wells² has searched the fields of normal and abnormal life for types of "mental regression," a replacement of fundamental trends by those less fundamental, more childish, less demanding. The most important of the pleasure giving trends which depend on the body and which have little value to real life is masturbation. If the accompanying imagery is of real persons there is some feeling of guilt. Wells covers the hymnal in bringing out regression as a pervading factor in religion; he says that at the time the hymns were written greater sex suppressions gave rise to auto-erotic tendencies with which topics of morbid self-accusation are generally loaded. There is none of this in the less civilized writers of the psalms, who do show however both self-abasement and self-depreciation. And from another point of view the subject covers his instinct for abasement by a fancy that he is wicked. And again, "self-accusation rationalizes a need for help The prayer for help must often fail. Then the preservation of faith is made easier by the self-accusation of great wickedness Not because there is no God—but because I am unworthy."

Southard's³ "Application of Grammatical Categories" gives us the term "reflexive" for certain states of self-accusation. His articles on "Manifest Delusions" give us James' distinction of the spiritual ego and the material *me*. The *I* and the *me* in the normal person are well adjusted: "I am at peace with myself." In the patient the *I* may dominate actively the *me*—flagellation, certain delusions of grandeur. Or the *I* can passively be lost in the *me*—

inadequacy. It is doubtful to my mind whether in self-accusation the *me* overcomes the *ego* or whether a *me*, remaining unchanged as far as outside observation goes, and according to the patient's own normal judgment later, is misconceived by a faulty *ego*. Certainly a grammatical classification of both self-accusation and the sex activities which it is said to follow as in the reflexive voice is stimulating.

In mental diseases self-accusation appears tied up with many other important symptoms—with delusions of reference, persecution, with auditory hallucinations. Its projections are probably numerous. At present I wish to search several writers and a group of clinical records for information upon the limited topic—direct accusation of wrong-doing brought by patients against themselves. This of course leaves self-abasement on one side.

FRENCH WRITERS.

The French* have dignified this symptom by placing it in the names of some of their types of mental disorders. In subgroups under constitutional psychopaths we find "paranoid auto-accusers" and "original systematized delusions of auto-accusation." Dercum* gives a similar group. We find Arnaud explaining that the remembrance of his past state contrasted to the present makes a patient pessimistic, and this pessimism increases as he compares himself with those about him. A disturbance of the organic sensations is the origin of melancholia—self-accusation is always a secondary symptom. The real self-accusation of the melancholiac is monotonous, a litany. The false self-accusation of the paranoiac is changeable. Self-accusation tends to religious or sexual subjects.

WERNICKE.

Wernicke* wishes us to imagine a disease of the auto-psyche which is to be thought of as having a local habitation in the brain. One of its results may be a feeling of unhappiness, which then determines the content of hallucinations and delusions, in both of which self-reproach may be present. Strong emotion has the power to divert the stream of thought from its ordinary channels, and to form new ones under the influence of an over-valued idea—whose usual antagonist is abolished. There is established a heightened susceptibility for certain stimuli, a partial intra-psychic

hypermetamorphosis. On account of certain breaks of physical continuity there is no way for the delusion of self-reproach to be connected to higher-idea combinations. The delusion cannot be brought to the seat of judgment, which may be able to deal adequately with ideas which come from another direction. Self-reproach, as well as other auto-psychic symptoms, tends to occur in the milder stages of the disease process.

Adding a bit of William James, we may speculate in this manner: we weep because of some physical process; we are sad because we weep; we are self-accusatory because we are sad.

KRAEPELIN.

Kraepelin¹ says that of all depressive delusions those of sin are the nearest to the ideas of ordinary life. He finds self-reproach fastened both upon very harmless past experiences and upon the progressive events of the present illness. He speaks of the content as being frequently religious, but he does not mention sexual content. The experiences of life which can be considered without involving the emotions, may give rise to mistakes but not to delusions. Strong emotional tone will give an idea preponderating weight in consciousness.

Straight to the point is his consideration of the strain which highly organized society puts upon the individual. A feeling of constant and definite responsibility is the determining factor of self-reproach in a psychosis. Delusions of sin and ideas of self-reproach are not known in people who have simple surroundings. Kraepelin, from his own observations, speaks of their absence in the native Javanese. The point has been strongly reinforced by the fact that in happy-go-lucky negro communities, with lax moral standards, melancholias and especially delusions of sin are extremely rare."

FREUD.

The consciousness of guilt is in every case a product of repression. An idea is repressed only when an instinct is inhibited by coming into conflict with other ideas of higher value to the individual. So at maturity when the memory of earlier sexual acts becomes painful, memory plus reproach is thrown below consciousness and replaced by shame and scrupulousness—successful de-

fence symptoms. Obsessive ideas are transformed reproaches escaped from this repression; they are always connected with some pleasurable accomplished sexual act of childhood; the consciousness of guilt can be traced almost always to auto-eroticism. Often the repressed material secures symbolical expression.

In this view the feeling of guilt represents not merely an atonement for past wrong-doing, but also the satisfaction of an instinct denied its expression in reality. When the intensity of a self-reproach far outstrips the apparent occasion, this is not because the affect is too strong but because the affect has broken away from some unconscious content and fastened itself to some unimportant thing in the foreground of consciousness.^{10 11}

The conception may be modified by Jung's substitution of "the transgression of an inalienable life-demand" for "auto-eroticism." Or with Adler it may be preferred to regard self-reproach as neurotic conduct for the purpose of enhancing the feeling of self-esteem, of torturing others through self-torture.

The shortness of these summaries is sufficient acknowledgment of their inadequacy, but we are able to take from them certain guiding questions to apply to clinical material. Is self-accusation the result of an effort to explain a sadness that has fallen upon a patient, or to explain away the instinct for self-abasement? Does emotion set up an overvalued idea which then determines self-reproach? Can the feeling of guilt be regarded as a present and continuing satisfaction of an instinct denied its expression in reality? What is the manifest content of delusions of self-reproach? In what personalities do such delusions develop?

With these questions in mind I turn to the present small series of cases to determine what work can be done on a broader series of consecutive hospital admissions to deepen our understanding of self-accusation as it appears in the individual patient.

To-day I present 80 consecutive admissions to the Woman's Department of the Pennsylvania Hospital, beginning with the first day of the hospital year, 1915. We have a two-year view of the psychoses. The records follow the history given and the patient; they do not lead; they do not emphasize. I realize their defects. But for the purposes of this paper I am glad to say that they seem broad, fair and superficial. Why the latter term should have a bad connotation I do not see; the superficial and direct

should have at least an equal place with the deep and devious. Certainly the inner parts of our bodies are important because they are so closely linked with its surface. I am willing to have this paper classed as another "elaboration of the obvious."

Of the 80 cases, 13 showed repeated self-accusation and four others showed it in isolated instances. There were more than this total of cases showing depression without self-accusation.

As I abstract only what on the surface directly bears upon self-accusation in the 13 cases, the following facts will give some orientation with regard to the series. Insanity appears in near relatives in all but three (B M K). The first five cases had no hallucinations; the next four (F G H I) had many. Both groups, however, were clear and approachable, with remarkable insight into the psychoses of other patients. The last four cases had hallucinations also, but could not turn away from them to talk to the examiner; they were confused.

As to diagnosis the more these cases are studied the less easily they can be made to fit into pigeon holes. The psychoses are clearly uninfluenced by mental inferiority or organic brain disease, although one patient is 73 and another has a hemiplegia. Six of the cases (B C E F G H) at least are classifiable as manic-depressive. Details follow:

Mrs. A, admitted at 42, and remained in the hospital for three years without important change.

A sensitive, very conscientious, bright woman of high ideals, a very competent trained nurse, but rather inadequate outside of her own work. She made devoted friends. Discoloration of the skin of her face coming on at 14 has made her envious and kept her indoors in the summer time. She was devoted to her father, who died when she was a child, and did not get on well with her mother, who later became insane. About nine months before the patient entered the hospital, her mother became ill and an elderly patient, to whom she was devoted and whose ideals she considered high, died. Some one wondered where the dead man's nail file had gone to. Mrs. A wondered if they thought she took it. A man to whom she had been half engaged suddenly came to her and urged her into a hasty marriage; they separated in a week. Here the patient says: "I ought to have helped my sister—I should have had love and I didn't—None of my family is fit to live—My mistake was in getting married—I thought I was to be cock of the walk—I invited him on."

Who is to blame?

"My husband."

Any one else?

"Myself. I've done it now—I've ruined the whole family—I should have made a home for my mother."

Mrs. B, admitted at 73, and remained three years without important change.

A pleasant, loving, humorous, social woman. Intelligent, a talker, industrious, very much interested in her church work. This person had a first attack at the menopause, with a recovery in several weeks. At this time she said she was unworthy and had lost her soul. A second attack, with recovery, occurred at 62, after her husband had had business trouble and physical illness. Present attack came on suddenly a week before admission, when the patient was recovering from the grippe, and had been worrying for about a year over anonymous threats which came to her husband. The patient describes the onset: "When I went to bed I prayed and said—'Deliver us from evil.' The word evil seemed to stick in my mind. When I got up in the morning to go into the next room, it dawned on me suddenly that I was sick. When I went to bed I prayed the Lord to deliver me from evil and I woke up filled with it—I am damned forever—I haven't the feelings of a human being any more—There is nothing to control my actions and that makes me intensely wicked."

Miss C, admitted at 38, and remained two years without important change.

Bright, proud, selfish, overbearing person, successful as a trained nurse. This patient at 23 had a mild depression. At 30, she had an unhappy love affair. About a year before admission, when worried about her father's illness, she again became depressed. She said she had committed the unpardonable sin, had not lived right, had been unjust to people, and was going to hell, being possessed by an evil spirit. Here during the first few months she said: "Something has happened to bring my mind into the wrong way of thinking—The trouble is I didn't control myself when I could and now I can't . . . It isn't sickness—it's wickedness—I've been thinking wrong and acting wrong." She refers to self-abuse. "I know that affects the mind—I am under a cloud—I blame nobody but myself . . . Satan got hold of me . . . I can't forgive them for bringing me here—It's all my fault being here—How I have been self-centred all my life . . . The acute thing has quieted down and left me with this terrible belief—I think I must be insane—the possession of my soul and body by the devil—I can't grasp this thing of my being here—I have lost my identity. Doctor—I can't see my way out of this because I am working with Satan and I am determined to have it that way—Something has passed over me—for instance, a marriage ceremony after it is over it is lasting—so this thought has conquered me. Nobody knows the working of a patient's mind—I didn't fight against—no matter what I do—now I belong to Satan. It seems like I am just determined to go to perdition—You know what made my mind go over to the wrong side—it was that terrible sin I told you about." A year after entrance she said: "I am a moral imbecile—It was a terrible crime, but I don't deserve this punishment—There was trickery and underhandedness and cruelty that brought me in here." From this time on the

patient became much more egotistical, irritable and complaining, while her self-accusation became less marked.

Mrs. D, admitted at 58, in hospital two weeks, recovered in six weeks.

A quiet, shy, religious woman, frail but seldom ill. A year before admission she began to say that she had sinned against God and threatened suicide. Her sister was in a similar state. Her mother, at the menopause, had accused herself of the "unpardonable sin." Here she said: "I felt a band across my head—Then I cursed God—Something left me—my heart and eyes changed. The Bible says I should be single—this is perhaps the unpardonable sin . . . One Sunday I took a ride in the new motor instead of going to church—that is the unpardonable sin."

Mrs. E, admitted at 44, discharged three months later, improved.

A bright, normal and happy child. A leader in social activities. After marriage, at 22, and the birth of her premature child, who did not live, she was depressed and self-accusatory. Two years before admission she had a growth removed from her jaw, and since that time she has worried over the question of its malignancy. A year before admission she attended revival services. Three months before admission she suddenly became depressed, refused to eat enough food, and later accused herself of the "unpardonable sin." This sin was something that happened in her childhood. Here she said: "I felt abandoned—as if the world were on top of me—I tried to think and thought what it might have been—I never blasphemed or anything like that—The awful thing came over me and that's all I know." (You were sick before?) "That's where I got the idea I was cursed because I had such awful luck." (You were well for years.) "Yes, but as I look back I see I should have done things better . . . It was in the first 20 years in my life that I offended God so unpardonably—I was too ungrateful to my father and mother, proud, unkind to my grandmother, one time when she had a headache . . . My unpardonable sin was my selfishness, indifference and pride, in the years before my marriage—I don't know whether I know what it was or not—I never did things, though it was not what I have done, but my disposition—always discontented."

Mrs. F, admitted at 59, recovery in three months.

A social woman, capable at business, fond of outdoors. She was depressed, restless, but not self-accusatory at the menopause at 43. Nine months before admission she again became despondent, after the death of her husband after a long illness. At first she wanted to die and feared poverty—then she became self-reproachful. Here: "I'm worrying about the way I've been living—dishonest and I can't help it—I've led a bad life—I never murdered anyone . . . I'm wicked and I shouldn't eat—I hear voices all the time." (What do they say?) "I done wrong because I tried to take my life—I didn't go to church—I got wicked—I sinned and I can't get away from it . . . I never murdered—I have a clear conscience for that." Two months after admission: "I begin to think I imagined all this—that I done wrong."

Mrs. G, admitted at 42, discharged much improved in a month.

A moody, seclusive and quick-tempered woman. Previous depressions occurred at 30 and at 33. Thirteen months ago, at the time of her mother's death, she had several uterine hemorrhages (carcinoma) and greatly increased sexual desires. She lost interest in her surroundings, had delusions of unreality and persecution. Here she said: "I feel I am really the cause of my son's trouble (insanity). I blame myself for everything—this is the third time I've been out of my mind and I'm afraid it is my own doing."

Mrs. H, admitted at 53, and remained for three years unchanged.

A bright, amiable, talented woman, interested in current events. At 39, she had an attack of depression and self-accusation. At 50, she had a paralytic stroke, which has left her with a left hemiplegia. Eight months before admission, the menopause was completed. Two years before admission she became self-accusatory—said she was bad and had had evil thoughts; that she was different from her sisters, and was pregnant by the devil. She also said her son was bad sexually. On admission here: "My mind isn't under control and I keep wishing things—that my boy should go blind and I really don't want him to go blind. I think I have cursed people—things I have wished on my family have come true—I think the worst thing is when I dream." (Are you responsible for the dreams?) "I am pretty responsible I think . . . There was some noise last night and I was the cause of it—about my boy—The man in the cellar will get him and take him to the mines . . . I have been hearing voices to-day—I guess I am a wicked woman—I had a boy and never did take care of him . . . It's sin with me—it isn't sickness—I put my son in hell, the younger part of him is in hell—I got so wicked and thought that the devil overtook me and put me in this hell—The trouble was I dwelt too much on my boy—I ordered the most cruel things for him . . . I have sinned that awful sin—putting him in the bad place—Thomas—the younger part of him—I made the instruments years ago—I think I am the woman mentioned in the Bible . . . Such an imagination, a wicked one, but it isn't a crazy imagination—I ordered the boy's eyes to be put out and his heart torn out—I ordered thick spikes for his hands and nails—for his feet—I saw smoke coming out of his eyes—It isn't imagination because it lasted too long." Three months after admission: "The younger part of him is in hell, the child part—If I had been a high-minded thinker, I should never have gotten into this state—I have been the greatest criminal on earth." (What do you mean by the younger part of him?) "The younger years—he was made up of different ages." (Do you mean you sent some part of him to hell?) "His whole body." (How old was he?) "About eight." (How old is he now?) "Twenty." (And well?) "Yes." (Doesn't it seem hard to explain?) "No—only the younger years are in hell." (How could you send anybody to hell?) "Because I was cursed." Six months after admission: "A little wren in the yard represents Thomas when he was small—A larger bird that croaks represents Thomas older—that seems ridiculous." Nine months

after admission: "I am the cause of all the evil in the world, all the small-pox and all the grippe, all the war going on in Europe and Mexico. I was cursed by my mother before I was born." Two years after admission: "I have done no wrong act, but simply thought wrong things—I was never wicked but may have done bad things through ignorance." She speaks of some apparently trifling sexual irregularities as a child. (Nurses Notes): Everything reminds her of Thomas and her sins. Things such as, good people, screaming doors, whistles. Words such as, mosquito, varnish, desert, sea and cook-book. She says it would be a great comfort if she could realize that she was insane and not wicked.

Miss I, admitted at 48, and two years later, after several marked improvements, a patient in another hospital, not improved.

Even, kind, good in her disposition, rather religious, a hard worker, with few amusements. Health normal. Bright as a child; unselfish, affectionate, making many friends. At 19 had unhappy love affair. A capable trained nurse. For four years before admission had given up work to take care of mother. A year before admission, a change in disposition was noticed, with the beginning of the menopause. She became depressed, indifferent and suspicious. Two weeks before admission she claimed that she had been poisoned and accused herself and a doctor of immoral conduct. At this hospital she said: "I wanted to take care of my poor old mother, but I complained—it's the work God gave me to do. Another thing I did, a terrible sin, I am ashamed to tell you." She refers to self-abuse. "There is something worse—that awful day with the doctor—I am not sure whether I went wrong or not—it was a sin anyhow. There's other sins—so many. I was raised a Catholic and I denied it. Another thing I had a dear, little niece—Was her death my fault? Did I give her medicine too many times? I took her to school, but I didn't know she would get diphtheria. My sin was to complain. Then long ago—with that doctor and that other man—I got rid of him, before it got so bad." Two months later: "I was sinful but God forgave me." Hallucinations become prominent. Under the shower bath she sang: "This will wash my sins away." In another month her behavior became normal. She went home, but began to confess her sins; saw a baby pushed down from the clouds, and connects this incidence with her relations to the doctor. During the next year appeared many fantastic, nihilistic and persecutory delusions, with an hallucinosis combining all five senses. At present she is having many delusions of a sexual and religious character, is self-accusatory, talks vaguely about God and her lover and her approaching marriage, to one or both of them.

Mrs. J, admitted at 38, and two years later unimproved.

A nervous, sensitive, rather ignorant woman. She is described by some as not generally sociable, but her husband describes her as jolly and a hard worker. Four months before admission a baby was born, and for six weeks everything went well. She then began to utter hypochondriacal ideas. Apparently she hadn't wanted this child. Her husband was alcoholic. Here

she complained first of having tuberculosis of the stomach, and later of having syphilis. She admitted self-abuse. She said: "Me head is not bad—me heart is bad—The stomach pains too. A man boarded with me and he had a bad disease—Oh—how did I get it in my stomach—Who gave it to me? I am damned—I am all to blame—I never done no crimes—They're going to murder me—I have sinned but what have I done . . . I was blackguarded—I was a whore—It's nice to have life, but I wish I was a little bird so I could walk around and see things—That bad disease I had took out all my brains. You aren't a doctor, but God's son . . . The soul of sinners never dies—My daughter is hanging on a tree out there and animals are jumping for her—All my life I have been bad—I didn't know about it myself though—I tried everything—the fault was mine—I have been bad." (Why?) "I don't know—it wasn't my fault." (Are you married?) "Yes—I was." (Why do you say was?) "Oh—he's married now to that pretty girl." (Are you married?) "No." (Why do you say that?) "Yes—but I have no husband—I want to stay here all my life. I don't care about the baby—she was the means of breaking my health." Two months later: (Why are you sick?) "A lot of worriment and work and a run-down condition." Six months after admission: "Well—I don't know if I spoiled my life—I never had the proper sense to guard my own church—the church is your body—Joe had knowledge—he didn't teach me—He ate the same food that I ate—it didn't harm him." (Have your sins been greater?) "Yes—I think he was capable of turning things—His stomach was a fertilizer—He was guarded by spiritual guidance." (Do you mean voices?) "I don't know them until I eat biscuits—Their source is inside of me." (Nurses Notes): Patient accuses the nurses of putting something inside of her, which she is being blamed for and that is why she is being punished. Nurses do this at night when she is sleeping.

Miss K, admitted at 42, and died in one month.

A social, kind, self-sacrificing, considerate woman, who had occasional "blue spells." Fond of music, an inveterate reader, sewer and church worker. Tendency always was to work too hard and eat too little. She had always been able to take care of herself until 18 months before admission, when she told her family that there were snakes crawling about her bed; that she had committed the "unpardonable sin," which was self-abuse; that dogs, cats and snakes were inside of her. In her month's stay at the hospital these delusions were repeated. In addition voices told her not to eat; she saw faces in the food and heads on the bed, and she felt it would harm her sister if she took the food. Here she said: "There's a serpent in my stomach and if I don't eat it will not live—The food is part of my people." She did not want to walk over a clean rug, saying that things would drop from her and make it unclean. Many times she hunted for things that she felt on her clothes, snakes and bugs; thought the devil and snakes were in the bed, and wires and bugs. Many times patient tossed on her bed and repeated over and over—"Sinner—sinner."

Mrs. L., admitted at 50, discharged much improved in four months and recovered in six months.

Her disposition was described as good, jolly, sociable. She enjoyed talking and was excitable; was fond of painting and music. She was a good student, graduating from high school and then teaching for 10 years. She was married at 27, to a man who indulged considerably in alcohol. She had one son. One year before admission she passed the menopause. Seven months before admission she was confined to her bed with kidney and heart trouble. She lost appetite and sleep; became suspicious and feared that she was going insane. Physical examination at this hospital showed a very irregular heart, a strongly positive Wassermann of the blood, and a spinal fluid negative to all tests. Absolutely disoriented—thinking she saw dogs coming to eat her. "I am unclean—I am the incarnate fiend—let everyone hear. Now I am guilty of the one, but not of the other—I cannot live if I don't confess my faults . . . I think I wronged him terribly . . . I will acknowledge to the world—I didn't know I had the bad disease till I saw my knee was red . . . Of all the things I have been accused of to-day—Murder . . . I don't know what else." Listening to the noises of other patients. "They said I stole things . . . Did I ever do wrong? She says I stole."

Miss M., admitted at 32. At the end of one year she showed great improvement, followed by a relapse, and at present is in the hospital, unimproved.

An average, healthy child, who made many friends, but who at the same time was retiring, quiet, keeping her troubles to herself. In her school work and later she showed an extreme conscientiousness. In her nurses' training she was always trying to place some blame upon herself. She did well as a nurse up to the onset of her illness. Four months before admission she saw two moving pictures, which dealt with selfishness and thought they referred to herself. Many ideas of persecution later developed. At this hospital she was catatonic and retarded. She wrote in a tremulous hand, with many mistakes. "I must be the murderer because they have try to give in—Everybody liberty but I have been too narrowminded. I have been against our bishop . . . Somebody will have to take because I have told you before that I was the—traitor." Later: "I have to go out and prove I am a murderer." (Why did you say that?) "Because I couldn't get around it." A week or so later she called the nurse a traitor, and a month or so later at her sister's house she said her sister's husband was a traitor and that the devil had possession of herself. She said she wasn't loyal to one position because she went to others. Later: "I should never have been a nurse—I didn't have the qualifications for it."

In order to mention every case of self-accusation I abstract four additional cases where it appears in only fragmentary form.

1. A telephone operator of 19, in a sudden onset of confusion accompanied by convulsions, said: "Don't let me stay in the world any longer—I haven't been behaving myself—I've sinned—I imagine I have." Removed before she could talk coherently. Recovered after six months.

2. A normal school teacher, bright, affectionate, stubborn, quick tempered and nervous, at 26 became confused, hallucinated and silly. At home she accused herself of the unpardonable sin: said she had wronged her mother and killed her. Here said: "I'm not going to get married because I am too bad." (Why?) "Oh, everything!" (Why?) "Oh, I am afraid I've broken my mother's heart!" Recovered in six months.

3. A woman of 62, deaf, after an operation and the breaking up of her home accused herself of thefts. Here she showed chiefly suspiciousness and recovered in three weeks.

4. A young, Jewish, married woman, deaf, said: "I have found the causes of my trouble—I have stolen. I am here because I tore the cotton off the slippers I was wearing. The trouble is because I ate ham." Later: "Before the baby came I did something I shouldn't have done—but it didn't hurt the baby—someone made me do it." (Eaten ham?) Discharged and lost track of.

Below I give a short summary of each abstract in the patient's own words:

A. I made a great mistake because I thought I was cock of the walk.
B. I woke up filled with evil because there was nothing to control my wicked thoughts.

C. I am wicked because of being self-centered and self-abuse.

D. I committed the unpardonable sin—I am changed—I must have done something contrary to the Bible.

E. I committed the unpardonable sin in the first 20 years of my life—I was proud and unkind to my grandmother when she had a headache.

F. I sinned—I don't know how—because I tried to take my life, etc.

G. I blame myself for my mental trouble—(self-abuse).

H. I sinned because I couldn't control a wicked imagination.

I. I abused myself—a terrible sin—There's other sins—so many.

J. I sinned because I didn't guard my own church.

K. I sinned because of self-abuse.

L. I am guilty—I think I wronged him—They accuse me, did I do wrong?

M. I must be the murderer—I was too narrowminded. I am a traitor—my work was too much for me.

The first comment is that the two cases at the end of this list do not show any conviction of sin; it is not self-accusing self directly; they are almost persuaded that other people (reference, and hallucinations) may know of some sin of which they are ignorant. The two cases emphasize that the conviction in all the rest is coupled with the fact that the wrongs mentioned are possible events of their past of which the patient should have better pictures than outsiders.

Cases B and D felt a change. B realized that an attack of depression had come on again; she knew it from two previous attacks; it was like looking down and finding a rash. The word "evil" had stuck in her mind from the Lord's Prayer of the evening before. Finding herself depressed, she was "evil" as proved by the lack of control of her thoughts. D had no personal experience in depressions, but her mother had talked of the "unpardonable sin" in her melancholia; finding herself changed, the association with "sin" was easy, though no special sin was available. The appearance in these cases is that of a rationalization of a sadness, and there is nothing to suggest associations in the patient's mind with anything except the immediate situation.

Case C, on the other hand, at once carries us back at least 17 years, when she says she began the habit of self-abuse. She tells us that she has never matured—has always looked at things in a childish way. She had a love affair of a mild sort 18 years ago; the man stopped coming to see her; she was too proud to speak about it; she has remained single. For two years she has been restless, incessantly tormenting herself and those about her, scratching herself, threatening suicide. But she says she doesn't want to get well; she describes a double mind, her own and Satan, and days afterward she says that she is working with Satan and determined to have it that way. She is sorry she can't get away from herself—will always have to live with herself.

Is this the continuing satisfaction of an instinct denied its expression in reality? It fits in among the examples of mental regression given by Wells. Surely the surface view of this case shows at unceasing work an agent powerful enough to make an intelligent woman prefer insanity to obtain something denied to her sane moments.

In these cases what is the manifest content of the delusions of self-reproach? Sexual first; religious second; the two often in combination. Sexual ideas find expression in very obvious metaphors and symbols; "seeds" and "serpents" and "unpardonable sin" and "self-abuse" are all connected by direct statement (K); "My church is my body"; "I am pregnant by the Devil." Then come a number of trivial statements, with some indication that the patient is casting about without conviction that she has struck the right or the only sin.

The personalities which have developed self-accusation have some striking traits in common. They are very intelligent (J an exception). Charles Reade has said that only the intelligent man was subject to remorse. All were industrious. All were doing good work in the world when taken ill, and they were taken ill late in life. All were conscientious. Most were attractive people and made friends. In all these respects they were far superior to those making up the group of depressions without self-accusation.

Let me call attention to the fact that four out of the 13 patients under consideration were trained nurses. In what training is there such insistence upon the awful consequences of small mistakes, such direct and blunt censure? And how well a hospital's tension, complication, responsibilities represent the strain of civilized life? Granted that many can draw pay year after year from a hospital without in any way letting the strain and responsibility touch their garments, such an admission only emphasizes the burden which falls on others.

On account of their very virtues these nurses and others have been prominently exposed to the strains of civilization in general. We see Kraepelin's correlation verified in these special cases. We must mention that greater civilization brings greater sex suppressions, and we have found a sexual content the most frequent one. These 13 women, averaging 47 years of age, have had six children. Is lack of sex restraint the cause of lack of self-accusation among the simple Javanese and cheerful negro?

It has been unfortunate that the five recoveries from these 13 cases have been in patients who have left the hospital without giving a chance for retrospective accounts of their illnesses. Why did these five recover without direct help in solving the problem of their delusions?

IN CONCLUSION.

A study of 13 cases showing self-accusation derived from 80 consecutive admissions of women, has indicated that this symptom develops in conscientious, responsibility taking persons who are predisposed to insanity by heredity; that the manifest content is sexual or trivial, often expressed in symbols; that self-accusation apparently may represent not only a rationalization of a mood or instinct, but a continuing wish not yet reconciled to the total self.

Further study of wider range on consecutive cases seems justified. Points for especial attack should be the relation of the personality to ensuing symptoms, retrospective accounts of recovered patients, a continual asking of the question "why?" during the psychosis, and a separation of first attacks from others.

Why restrict suggestions derived from Freud to the depths? Surface descriptions may yet prove more enlightening as to the real nature of the psychoses.

BIBLIOGRAPHY.

1. Arnold Bennett: "Price of Love."
2. Wells: Mental Regression, *Psychiatric Bulletin*, October, 1916, especially pp. 1-9, 18-20, 29, 38-40.
3. Southard: On Descriptive Analysis of Manifest Delusions, *Journal of Abnormal Psychology*, August, 1916. On the Application of Grammatical Categories to the Analysis of Delusions, *Philos. Rev.*, May, 1916.
4. Ballet: *Traité de Path. Mentale*, 1903, 234-9, 295, 316, 547-56.
5. Dercum: *Mental Diseases*, 1913, 145.
6. Wernicke: *Grundriss der Psychiatrie*, 2d edition, especially pp. 78, 223, Chaps. XII and XXIII.
7. Kraepelin: *Psychiatrie*, 8th edition, I, 168, 120-5; 321, III, 1266.
8. O'Malley: Psychoses in the Colored Race, *American Journal of Insanity*, 1914, 336.
9. Green: Psychoses among Negroes, *Journal of Nervous and Mental Disease*, 1914, 697-702.
10. Hitschman: Freud's Theory of the Neuroses, 1913, p. 101.
11. Pfister: *The Psychoanalytic Method*, 1917, pp. 55, 99.
12. Adler: *The Neurotic Constitution*, 1917.
Tanzi: *Mental Diseases*, 1909, p. 508.
Peterson: *Nervous and Mental Diseases*, 8th edition, 738-746.
Hart: *Psychology of Insanity*, 1912, 118-124.
McDougall: *Social Psychology*, 1914, pp. 33-180.

CERTAIN OF THE CLINICAL ASPECTS OF "LATE KATATONIA" WITH A REPORT OF CASES.*

By EDWARD A. STRECKER, M. D.,

Assistant Physician Pennsylvania Hospital for the Insane, West Philadelphia, Pa.

INTRODUCTION.

The history of katatonia as written in the literature of the past 40 years is the record of a constantly changing conception, thus sharing the common fate of every disease or symptom which has been intensively studied. In 1874, Kahlbaum¹ published his masterly description of katatonia as a "disease-entity" of relatively favorable course and termination, embracing so-called "melancholia attonita," stupor and "acute dementia," as clinical variations of the same basic process. Motor disorders were emphasized as the essential feature. In the same year Arndt disputed the theory that Kahlbaum had uncovered a hitherto, undescribed psychosis. Sometime later Hack Tuke² referred to katatonia as a state resulting from "the exclusive direction of the mind on a melancholy subject," and in 1890, Bevan Lewis³ dismissed it as one of the "multiple forms of hysteria."

All these and many more conceptions are echoed in recent contributions. So we find that to-day, katatonia is according to the trend of the particular observer, a disease process or merely a symptom, a strictly functional or an undoubted organic disorder, a somatic expression of toxicity or a psycho-pathological mechanism precipitated by a complex.

KATATONIA AND KATATONIC-LIKE SYMPTOMS.

The flattering attention which the general subject has received from every department of psychiatry and its related fields has naturally tended to widen the scope of its original application and perhaps in some instances has beclouded its true significance. Primarily regarded as essentially a motor or muscular phenome-

* Read at the seventy-third annual meeting of The American Medico-Psychological Association, New York, May 29-30-31-June 1, 1917.

non, as is indicated by the derivation from the Greek *κατατείνω* "I stretch tightly"—it has gradually been expanded and made to include the most varying forms of behavior—abnormality, of which mutism, scolding spells, impulsive violence, refusal of food and the stereotopies are fairly typical. As these and similar symptoms are not infrequently the sole katatonic representatives of certain clinical syndromes, which arise during the fifth decade and later and are often cited to substantiate a diagnosis of "late katatonia," the importance of weighing them in the balance of careful judgment at once becomes evident. It is not contended that such manifestations, as for instance, mutism or food refusal may not be distinctively katatonic in a given patient, the reservation is merely made that at times they are not katatonic at all and that when viewed apart from other considerations their interpretation must always remain highly problematical. Thus, the gradual extension of the list of symptoms which katatonia has been made to cover has greatly added to the difficulties of deciding which cases from the indeterminate group of psychoses encountered during the climacteric period and the pre-senium may be safely considered "late katatonia."

The array of so-called katatonic phenomena is truly formidable and there is scarcely a psychosis, organic or functional, in which one or more of them may not be discovered. Kraepelin⁴ emphatically warns the clinician against the fallacy of endowing any single manifestation with diagnostic value, no matter how clear-cut it may happen to be. Any suspicious symptom or set of symptoms ought to be regarded not as katatonic, but as merely katatonic-like, until subjected to a rigid comparison test with the remaining symptomatic features and indeed with the *entire history and course of the psychosis in which they appear*. For instance, catalepsy, echolalia and echopraxia, grimacing or rhythmical movements and the like are not necessarily significant for katatonic dementia præcox unless they are accompanied by other signs and upheld by the general trend of the condition in which they are found. This thought seems especially applicable to the problem of "late katatonia," which occurs at an age when the more unusual forms of manic-depressive insanity, arteriosclerotic and other organic processes, and the presenile mental disorders are so frequently brought into question. It is all the more important because of the

inclination to speak of "late katatonia" as a disease or at least as a more or less definite symptom-complex for which certain prognostic laws may be formulated.

THE "LATE KATATONIA" OF URSTEIN.

Urstein³ regards "late katatonia" as a disease process rather than as a symptomatic expression. His exhaustive monograph is correctly designated a "clinical study" for it touches but very lightly on the pathological findings. His attitude toward the rôle which the autopsy and the microscope are to play in the solution of the problem is as distrustful and pessimistic as that of Kraepelin is optimistic and expectant. Urstein's "late katatonia" is an auto-intoxication disease whose etiology is to be sought in certain anaphylactic processes dependent upon the resorption of sex-cells or their products. The author himself appreciates the obstacles which stand in the way of applying this theory to a life epoch in which the sexual glands normally cease to functionate, but nevertheless maintains that the cessation of the strictly sexual function of the generative glands does not of necessity imply a complete stoppage of their metabolic activity. Further, he calls attention to the probability of a compensation on the part of the thyroid during the post-climacteric years.

From a careful study of 40 patients, Urstein has attempted to formulate a descriptive symptomatology for "late katatonia." To avoid useless repetition, I will simply indicate the general outlines of the composite picture which is presented, whose individual features are referable to three main symptomatic headings. First, general katatonic symptoms which characterize katatonia at any life epoch. Separately considered, these if perhaps somewhat more generous in their proportions, still do not differ essentially from the concepts of many other writers. However, particular emphasis is placed on the occurrence of so-called "contrast" or "disharmony"—"an inner dismemberment, splitting or doubling of the personality, along with retained mental clearness and orientation," which finds its expression in every imaginable contradiction of speech and act. In addition, optical illusions, and more particularly certain characteristic visual falsifications as a result of which the patient distorts both the animate and inanimate

environment, are also emphasized as diagnostic landmarks.* The second group of symptoms are not katatonic at all and may be designated "epochal" in that they simply bespeak the influence of a definite time of life on the individual. They may be viewed as a pathological distortion in a psychotic subject of the physiological effect of such critical periods as adolescence, involution and the senium, and are apt to make their appearance in the course of any functional psychosis. They are, therefore, not in any manner peculiar to "late katatonia," nor in fact to any other form of mental disease, and are only of interest in that they happen to be coincident with the true and essential katatonic signs. For instance, distrust, suspicion and mild and fleeting paranoid trends occurring during the sixth and seventh decades are more significant for the approaching senium than they are for the special form of mental disease in which they come to the surface. The third set of symptoms are put forward by Urstein as in some sense diagnostic and specific for "late katatonia." The more important of these are certain types of parasthesia, due to a disturbance of subjective sensation and forming a basis for the greatest variety of the most senseless hypochondriacal delusions. Nihilistic ideas affecting the environment both as to place and person are quite common, but the one feature regarded as unique is the somatic-nihilistic delusion. The author asserts that among the functional psychoses this symptom is confined almost exclusively to "late katatonia" or that in any event it is never encountered prior to the period of involution. We have twice observed the somatic nihilistic delusion in early life. Once in a girl of 19 who showed many katatonic traits, but made a fairly good recovery. She refused to eat because her intestines were decayed and asked for a new head to replace *her empty one*. Again, a woman of 32, whose psychosis followed childbirth, is diagnosed manic-depressive and has a marked nihilistic trend, frequently expresses such

* As an example of such visual illusions may be cited the following: A patient glancing at a passing nurse notices that her face changes, becomes longer or shorter, the eyes begin to slant or the mouth to widen. At another time he may insist that the grass is blue or the trees dwarfed. We have observed this symptom in a dementia præcox patient, whose psychosis could scarcely be called katatonic at the present time and was at its height probably paranoid.

somatic-nihilistic ideas as "my stomach and intestines were removed when the baby was born" or "my body is all dead. *I have no stomach*—nothing but heart and lungs."

As his diagnostic criteria are less rigid, Urstein's "late katatonia" is naturally more inclusive than that of Kraepelin and other observers. He embraces in his classification many of the circular and agitated depressions and practically all of the psychoses which Kraepelin prefers to retain with the pre-senile insanities until further clinical and pathological investigation can give them a more secure footing elsewhere.

KRAEPELIN'S "LATE KATATONIA."

Kraepelin's "late katatonia" is in the embryonic stage. His attitude is distinctly one of "watchful waiting" and his final judgment always the same, namely "anatomy must decide." He makes his strongest statement in favor of the probable existence of the late psychosis when under the discussion of dementia præcox* he observes, "there are undoubtedly cases which in the present state of our knowledge cannot be separated from the earlier forms and which we may designate as "late katatonia." During the involutional period the initial association of apprehensive excitement and melancholy delusions with certain katatonic manifestations, automatism, unapproachability, resistiveness and stereotopy, finally merging into a profound dementia is regarded as possibly, but not certainly, dementia præcox, influenced by a later than usual life decade. Among the rather heterogeneous collection of conditions considered under the heading of the pre-senile insanities' there are a number of sub-groups which closely approach the "late katatonia" of other observers, but which Kraepelin cannot bring himself to place in the same category. In that class of patients in whom a depressive delusional trend with anxiety was gradually replaced by deterioration, such katatonic phenomena as posturing, a stiff unnatural carriage, rhythmical movements and mannerisms, affected speech, refusal of nourishment, resistiveness and unmotivated excitement were all fairly common. Hypochondriacal delusional formation and the somatic-nihilistic idea, which Urstein would endow with such far-reaching diagnostic import, were also a part of the picture.

Kraepelin decides against "late katatonia" principally on the clinical grounds of insufficiency, late appearance and doubtful character of the katatonic-like signs. A smaller group of cases beginning usually during the second half of the fifth decade with depression and hypochondriacal ideas, which soon gave way to an anxiety state with apprehensive delusions and such marked restlessness and motor activity as to give rise to the name "motility psychoses" and which in turn was finally replaced by a quiet, mild dementia. Kraepelin again declines to place the "late katatonias." He feels that the katatonia evidence offered by inaccessibility, resistiveness and monotony of speech and movement, is too meager to uphold this diagnosis. The fact that in three fatal cases Alzheimer's necropsy reports were not at all in accord with those of early katatonia, no doubt contributed to the decision against "late katatonia." A more difficult problem was presented by the few patients, who during the sixth and seventh decades developed a severe and long-enduring excitement and finally demented. They might have been fairly considered manic in view of the motor unrest and ideational productivity, which closely resembled flight and often revealed rhyming; parietic by reason of the characteristic, grandiose delusions, and katatonic on the strength of impulsive behavior, inaccessibility, echolalia, motion stereotypy, incoherent, disconnected speech and light stupor. The absence of true negativism, hallucinations and distinctive autopsy findings, helped to turn the balance against "late katatonia." Thus, Kraepelin, cannot find among the pre-senile cases, a single instance which he is willing at present to transfer to the katatonic grouping.

BLEULER AND "LATE KATATONIA."

Bleuler^{*} devotes but a few sentences to the subject and is rather inclined to be distrustful of "late katatonia" as a separate and distinct psychosis. He has seen no cases, in which the possibility of exacerbation or recurrence of an earlier condition which had become quiescent, could be positively excluded.

AN ANALYSIS OF THE "LATE KATATONIA" IN TWENTY-FIVE CASES.

With the idea of analyzing "late katatonia" in its broadest clinical interpretation, not only as to frequency but also and more particularly as to its relation to the other features of any given case of mental disease, a review was made of the admissions for a two-year period including all the psychoses whose onset fell in the fifth, sixth and seventh decades. Of a total of 117 patients,* 25 revealed a strong admixture of katatonic-like phenomena; 17 of these occurred in the fifth, 5 in the sixth and 3 in the seventh decade. Occasional or very temporary manifestations were ignored and the katatonic-like factors in the appended table were generally pronounced, and frequently for a time, they were the dominant components of the clinical picture. The diagnoses given are an expression of the probabilities at present or on leaving the hospital. They are in no sense finalities, but merely deductions from the history, course and general clinical behavior to date. The table of cases follows this page.

MANIC-DEPRESSIVE GROUP.

Cases Nos. 1, 2, and in all likelihood, 3 were undoubtedly manic-depressive insanity, as evidenced by distractibility, flight and other manic features. The major part of the "katatonia" occurred in conjunction with freely expressed and strong persecutory delusional trends, and was practically always associated with marked irritability. It probably had its origin largely in these two factors. Refusal of food because of a belief that it contains poison, scolding or actively resisting the advance of supposed enemies and like reactions, are not at all an illogical expression of paranoid-persecutory ideas. When the connection between a delusion and a symptom, or set of symptoms, is not only clearly demonstrable but manifestly logical, as it seemed to be in these cases, true katatonia is extremely unlikely. In case No. 3, the stereotyped speech, fixed attitudes, grimacing, mannerisms and occasional mute periods, were the obvious accompaniments of frequent "trances" and were enacted by the patient in the rôle of a spiritualistic medium.

* A few cases of general paralysis and clearly established organic brain disease were excluded.

MANIC-DEPRESSIVE GROUP.

Case No.	Age at onset.	Previous attacks.	Katatonic symptoms.	Affect.	Delusions.
1	40	None.	Unapproachability. Resistiveness. Violent scolding spells. Destructiveness. Impulsive violence. Food refusal.	Exhilaration. Frequent outbreaks of angry-irritability.	Persecutory and grandiose.
2	49	At 32 a 3-years' depression with suicidal attempts and violence.	Unapproachability. Resistiveness. Violent scolding and screaming spells. Destructiveness. Impulsive violence. Occasional mute periods. Mannerisms (?).	Exhilaration. Frequent outbreaks of angry-irritability. Occasional depressed periods.	Persecutory and grandiose.
3	63	At 61 an excitement with recovery in 3 months.	Unapproachability. Resistiveness. Violent scolding spells. Destructiveness. Impulsive violence. Occasional mutism. Stereotopy of speech. Fixed attitudes. Grimacing. Mannerisms.	Frequent outbreaks of rage. Often irritable. Occasionally exhilarated.	Rather firmly held persecutory. Mild grandiose.

INVOLUTIONAL DEPRESSION GROUP.

4	42	None.	Resistiveness. Destructiveness. Impulsive violence. Food refusal. Mutism. Screaming spells. Fixed attitudes. Catalepsy.	Apprehension.	Hypochondriacal. Somatic. Persecutory (?).
5	40	None.	Resistiveness. Impulsive violence. Food refusal. Screaming spells. Stereotyped speech. Mutism. Peculiar attitudes. Grimacing.	Agitated apprehension.	No definite delusions brought out. Possibly some ideas of personal wrong-doing.
6	40	None.	Resistiveness. Food refusal. Screaming spells. Stereotyped speech. Mutism. Fixed attitudes.	Apprehension and agitated-depression.	"Unpardonable sin."
7	47	None.	Resistiveness. Food refusal. Monotony of speech. Mutism. Stereotyped movements.	Depression with apprehension.	Hypochondriacal. Vague paranoid-persecutory.
8	43	Depression at 24.	Unapproachability. Resistiveness. Destructiveness. Impulsive violence. Food refusal. Mutism.	Depression with apprehension. Irritability.	"Unpardonable sin." Hypochondriacal. Somatic. Paranoid-persecutory.

MANIC-DEPRESSIVE GROUP.

Hallucinations.	Consciousness and orientation.	Duration.	Result.	Diagnosis.
None.	Fairly well preserved.	13 months. Followed by a mild depression lasting 3 months.	Recovered.	Manic-depressive.
None.	Fairly well preserved.	10 months.	Recovered.	Manic-depressive.
Auditory (?).	Fairly clear. Orientation defective for time and person.	11 months.	Unimproved.	Probably manic-depressive.

INVOLUTIONAL DEPRESSION GROUP.

None.	Clouded. Probably disoriented.	5 months.	Died of cervical carcinoma.	Involutional depression.
Probably none.	Fairly clear. Defective orientation.	15 months.	Unimproved.	Involutional depression.
Auditory. Visual.	Clouded. Disoriented.	19 months.	Died of lobar pneumonia.	Involutional depression.
None.	Fairly clear with confused periods.	7 months.	Improved.	Involutional depression.
None.	Consciousness and orientation both doubtful.	6 months.	Probably recovered.	Involutional depression.

INVOLUTIONAL DEPRESSION GROUP.

Case No.	Age at onset.	Previous attacks.	Katatonic symptoms.	Affect.	Delusions.
9	42	None.	Resistiveness. Food refusal. Screaming spells. Speech monotony. Peculiar cramped attitudes. Mannerisms. Attempts to devour faces.	Agitated depression.	Personal wrongdoing. Hypochondriacal. Somatic. Somatic-nihilistic. Paranoid-persecutory.
10	48	None.	Resistiveness. Food refusal. Fixed attitudes. Speech monotony. Mutism. Catalepsy. Stupor lasting several hours.	Depression with mild apprehension. Irritability.	Of personal wrongdoing.
11	49	"Nervous" attack at 40. Attack similar to this one at 43.	Resistiveness. Long-continued mutism. Fixed attitudes. Catalepsy. Three brief stuporous episodes.	Depression.	(?)
12	41	None.	Resistiveness. Food refusal. Stereotopy of speech and motion. Mutism. Fixed attitudes.	Depression.	Hypochondriacal. Somatic. Of personal wrongdoing.

DEMENTIA PRÆCOX GROUP.

13	41	None.	Unapproachability. Resistiveness. Impulsive violence. Destructiveness. Violent scolding spells. Mutism. Posturing. Mannerisms.	Emotional deterioration. Irritability most constant.	Paranoid-persecutory and grandiose.
14	47	None.	Unapproachability. Resistiveness. Impulsive violence. Destructiveness. Food refusal. Violent scolding spells. Mutism. Mannerisms. Statuesque and grotesque attitudes.	Apparent apathy and silliness. Often irritable.	Paranoid-persecutory and grandiose.
15	45	None.	Unapproachability. Resistiveness. Impulsive violence. Destructiveness. Fixed, grotesque attitudes. Mannerisms. Grimacing. Catalepsy. Neologistic formation.	Possibly exhilarated. Often apparently silly.	Indifferently held paranoid persecutory, hypochondriacal and somatic.

INVOLUTIONAL DEPRESSION GROUP.

Hallucinations.	Consciousness and orientation.	Duration.	Result.	Diagnosis.
Possibly auditory and visual.	Preserved.	11 months.	Unimproved.	Involutional depression.
Probably none.	Fairly closely preserved.	22 months.	Unimproved.	Involutional depression.
Probably none.	Probably preserved.	14 months.	Marked improvement.	Involutional depression.
None.	Probably preserved. At times apparently confused.	3 years.	Unimproved.	Involutional depression.

DEMENTIA PRÆCOX GROUP.

Auditory. Visual.	Preserved.	8 years.	Unimproved.	Dementia præcox.
Auditory. Visual. Olfactory. Gustatory (?).	Moderately well preserved.	1 year.	Unimproved.	Dementia præcox.
Auditory (?).	Probably fairly well preserved.	9 months.	Unimproved.	Dementia præcox. Second choice, manic-depressive.

DEMENTIA PRECOX GROUP.

Case No.	Age at onset.	Previous attacks.	Katatonic symptoms.	Affect.	Delusions.
16	46	Somewhat similar attacks at 43, 44, and 45.	Resistiveness. Impulsivity. Impulsive violence. Destructiveness. Posturing. Mannerisms. Light stuporous states. Mutism.	Doubtful. Often seemingly apathetic.	Paranoid-persecutory. Grandiose (?).
17	43	"Nervous" for 2 months at 33.	Resistiveness. Persistent food refusal. Monotonous speech. Mutism. Impulsivity. Catalepsy (?).	Depression with apprehensive phases. At times seemingly apathetic.	Paranoid-persecutory. Unreality. Somatic.

UNCLASSIFIED GROUP.

18	47	None.	Resistiveness. Food refusal. Impulsivity. Impulsive violence. Screaming spells. Monotonous speech. Posturing.	Apprehensive depression.	Paranoid-persecutory. Personal wrongdoing. Hypochondriacal.
19	61	None.	Resistiveness. Food refusal. Impulsive violence. Destructiveness. Mutism. Fixed attitudes. Mannerisms.	Apprehension most constant.	Poverty. Negation. Somatic. Paranoid-persecutory.
20	62	None.	Resistiveness. Food refusal. Stereotypy of speech and movement. Mutism. Fixed attitudes.	Apprehension most constant.	Poverty. Paranoid-persecutory.
21	54	None.	Resistiveness. Destructiveness. Impulsivity. Impulsive violence. Screaming spells.	Apprehension most constant.	Hypochondriacal. Fantastic delusions of torture and death.
22	50	None.	Resistiveness. Unapproachability. Destructiveness. Food refusal. Impulsive violence. Mutism. Attempts to devour faces.	Fairly well sustained apprehension.	Unreality and negation. Fantastic distortion of time, place, person and inanimate objects. Somatic. Somatic-nihilistic. Paranoid-persecutory.
23	52	At 42 an attack lasting several weeks, marked by severe scolding spells.	Unapproachability. Resistiveness. Food refusal. Impulsive violence. Scolding and screaming spells.	Doubtful. Sarcastic, ironical and very irritable. Some evidence of silliness.	Vague paranoid-persecutory.

DEMENTIA PRÆCOX GROUP.

Hallucinations.	Consciousness and orientation.	Duration.	Result.	Diagnosis.
Auditory (?).	Preserved.	15 months.	Unimproved.	Dementia præcox. Second choice, manic-depressive.
Probably none.	Doubtful. Considerable confusion.	13 months.	Unimproved.	Allied to dementia præcox.

UNCLASSIFIED GROUP.

Auditory. Olfactory.	Confusion. Disoriented, especially as to place and person.	13 months.	Unimproved.	Unclassed. Involitional depression.
(?)	Clouded. Disoriented.	6 weeks.	Died of bronchial pneumonia.	Unclassed. Toxic (?). Arterio-sclerotic(?).
Auditory.	Clouded. Disoriented.	11 months.	Unimproved.	Unclassed. Arterio-sclerotic(?).
(?)	Fairly well preserved. At times confused.	7 months.	Unimproved.	Unclassed. Arterio-sclerotic(?).
(?)	Fairly clear. Often disoriented.	2 years.	Unimproved.	Unclassed.
None.	Fairly clear. Not oriented.	9 months.	Probably recovered.	Unclassed.

UNCLASSIFIED GROUP.

Case No.	Age at onset.	Previous attacks.	Katatonic symptoms.	Affect.	Delusions.
24	58	None.	Unapproachability. Resistiveness. Food refusal. Impulsive violence. Destructiveness. Violent scolding spells. Mutism. Mannerisms. Negativistic. Stupor lasting 2 months. Automatic movements. Retention of urine and feces.	At first apprehensive depression. Later marked irritability.	Of personal wrongdoing. Paranoid-persecutory.
25	51	A 6-weeks' attack at 40 with some manic features.	Resistiveness. Destructiveness. Impulsive violence. Food refusal. Monotony of speech. Mutism. Fixed attitudes. Stupor, at times negativistic, lasting 3 months and ending in death.	Agitated-apprehension.	Paranoid-persecutory and grandiose.

INVOLUTIONAL-DEPRESSION GROUP.

In the involutional-depression group, of which cases Nos. 4 to 12 inclusive, are fairly good examples, the prominent affective reactions were probably instrumental in the development of at least some of the "katatonic" symptoms. This seemed especially true in those patients in whom the apprehensive element, either alone or combined with depression, apparently reached degrees of maximal intensity. Various forms of resistiveness, seemingly impulsive acts, screaming, distortion and fixation of attitude, probably catalepsy and possibly stupor when they *appear in close association with moving, affective trends* may be at least theoretically viewed as expression movements for certain emotions. It has long been recognized that a strong wave of emotion, such as might for instance be produced by fear, automatically induces reflexive movements, probably of a defensive character, which are commonly regarded as evolutionary survivals. Spencer wrote: "Fear, when strong expresses itself in cries, efforts to hide or escape in palpitations and tremblings; and these are just the manifestations that would accompany an actual experience of the evil

UNCLASSIFIED GROUP.

Hallucinations.	Consciousness and orientation.	Duration.	Result.	Diagnosis.
Probably none.	Probably preserved.	11 months.	Unimproved.	Unclassed.
Auditory.	Confusion. At times fairly clear and oriented.	29 months.	Died of pulmonary edema.	Unclassed.

feared."* There is no good reason for believing that here the same factors may not be operative in the insane as in the normal—indeed it is possible that in patients suffering from mental disease, in which reality is in a large measure swept aside by delusions or the disordered condition of the consciousness, there is even less opportunity for the intrusion of diverting incidents, and both the emotion and the concomitant changes produced by it may be the more purely expressed. It matters not at all that the motion, the fear, rage, hate or whatever it may be, is founded on a false belief. It is presumably real as far as the patient is concerned and stirs him just as deeply as though it had its foundation in actuality. Unfortunately, physical concomitants, of which expression-movements constitute but a small part "stand in no constant relation to the psychical quality of an emotion."¹⁰ We know in a general way that the movements of expression vary with the intensity of the emotion, being active when the latter is of medium intensity and suddenly inhibited when it is violent. An emotion, however, is such a complex psychical compound and capable of so many individual and undeterminable variations, that we can

scarcely ever hope to formulate a constant parallelism between an affective process and a motor response. Still, the conclusion, that, in psychoses where the affective content is unmistakably virile and continuously being fed by realistic delusions, a large part of the so-called katatonia may be but a logical sequence of the emotional demands, is not entirely lacking in plausibility.

When the apprehensive factor was absent or less important and the depression apparently fixed at the same low level, the katatonic-like phenomena were apt to have a much more limited range and to be characterized by a greater monotony. The stereotopy of speech and movement was invariably the same, and the attitudes assumed seemed to be almost exactly reproduced, day by day, for long periods of time. However, they were all accompanied by the more or less obvious manifestations of depression, such as the troubled facies, bowed head and dejected bearing. It may be that the long continuance of a single emotion on a relatively low plane may weaken it and so simplify its composition that finally it is not much stronger than a mere feeling, and consequently calls for only a narrow range of expression. I do not wish to propose that true katatonia or katatonic-like manifestations, which cannot be distinguished from true katatonia, do not occur in conditions where the emotions are still liable." However, they are certainly much more infrequent and probably not in such close connection with leading emotional trends as they seemed to be in these cases of involutional depression.

The refusal of food, which was present in all but one of this series of cases, was at times directly connected with somatic and somatic-nihilistic ideas, again it was influenced by the delusional fear of poison. Only two patients showed brief, mild stupor, and in no instance was the resistiveness absolute enough to be classed as *negativism*, the one symptom which Kraepelin considers most significant for katatonia.

DEMENTIA PRÆCOX GROUP.

In the next group there are five cases; two of them are clearly dementia præcox, in two more this diagnosis is the first choice with a slight possibility of manic-depressive, and the fifth is doubtful, but was allied to dementia præcox. In the two cases in which the diagnosis was made positively, the histories as to the date of

onset are not entirely reliable. The fact that case No. 13, as a young woman was "moody, sensitive, seclusive, and at times almost paranoid,"* that case No. 14 has been "morose and unhappy" since her marriage at the age of 25, and finally that the allied case No. 17 was "nervous" for two months at 33, recalls Bleuler's belief that "late katatonia" is merely the recurrence of an early psychosis which had become quiescent.

In the group under consideration, the katatonic symptoms in the first four cases, at least, were of the same type as is met in early katatonia, and they were frequent and prominent enough to bring the question of "late katatonia" into serious consideration. They impress the observer as independent of all environmental contact, unrelated to whatever emotional life remains, purposeless and even contradictory as compared to the delusions and psychotic content in general. Their mechanism is extremely baffling unless we choose to bridge many gaps with the vaguest assumptions. It is suggested that for this very reason, they may be with the more propriety regarded as genuinely katatonic, even though this would in some sense limit katatonia to dementia præcox alone.

As suggestive evidence against "late katatonia" there is the fact that in none of these patients was there any indication of sustained katatonic excitement nor of stupor, and neither was the resistiveness negativistic in type. In case No. 17, the depression was fairly constant. The resistiveness and persistent food refusal were apparently a confused outgrowth of delusional fears that eating or the performance of other acts might in some way endanger her husband and children. "Everything I do is going to hurt them and everything I don't do is going to hurt" is typical

*The following additional history rules out the possibility of "late katatonia" in this case and fixes a much earlier date of onset for the psychosis. "At 25 the patient thought that persons on the streets were making adverse comments or ridiculing her. At 32 she would suddenly go home for periods of three to six months, leaving the responsibility of her house and children, without any thought of their welfare—'they got on her nerves.' At 35 she would lock all her children in the house, excepting the youngest, whom she would take with her to the woods for an entire afternoon. At 38 the patient left her home, taking the 18 months' old baby, and returned in six months with the child dirty and the back of its head flat from lying constantly in its carriage. Without reason she ordered the housekeeper to leave."

of the mental conflict which was attendant upon even the most common place actions. With the exception of the long-continued abstinence from food, the katatonic symptoms were not especially marked; the mutism was quite temporary and the catalepsy doubtful.

UNCLASSED GROUP.

Case No. 18, which was unclassified with a possibility of involutional depression is grouped with cases Nos. 19 and 20, in which the arteriosclerotic factor was considered because in all three a common element of toxicity was particularly prominent. With this exception they probably represent essentially different processes. In the first case confusion was marked and disorientation present, in the second and third the clouded sensorium suggested delirium and in addition there was fever. That katatonic-like reactions may occur in the course of infective-exhaustive states and in conjunction with febrile reactions has long been recognized. Bonhoeffer¹² describes a number of remarkable katatonic syndromes, including negativism under the fever aménias, and he dispairs of a distinction between them and true katatonia on the grounds of the clinical picture alone.

In case No. 21, unclassified, there is a well-founded suspicion of an arteriosclerotic process. Among the initial symptoms were headache, dizziness, twitchings of the arms and body, and staggering while walking. The systolic blood-pressure was 200. To be sure there are no indications of localized cerebral damage, but these may be absent from the early and even moderately far-advanced stages of the disease. The katatonic symptoms were not distinctive and of a type that is apparently fairly common in arteriosclerotic dementia. Here there seems to be a certain resemblance to the effects of excitative brain phenomena in that the katatonic-like outbreaks often recur in attacks or "spells" and are succeeded by comparative calm. They may, however, be striking enough to complicate a doubtful picture and suggest a primary katatonia.

Case No. 22, unclassified, is an interesting example of Urstein's hypochondriacal-nihilistic katatonia. This form he asserts is most common in women of culture and education. The patient was an authoress and the highly fantastic delusional content is undoubtedly influenced by literary ability and the habit of painting vivid

word pictures. Such ideas as being "but an imitation body without vocal chords nor any orifice to take in food, compelled to exist in a make-believe world, surrounded by manikins and stuffed dolls, denied air to breathe and with scarcely sufficient space to turn about in," were no doubt instrumental in calling out all sorts of behavior abnormalities. The katatonic-like symptoms were most prominently displayed in connection with the freely expressed delusions. The resistiveness never amounted to negativism and there was neither typical excitement nor any trace of stupor.

Case No. 23, is an unsolved problem. The psychosis showed little in the way of determinative emotional trends, although irritability was generally present. A recovery was scarcely anticipated. The paranoid element was indefinite, yet there seemed to be a fairly constant undercurrent of suspicion. The katatonic symptoms when they occurred were apparently clear-cut enough, but their appearance was comparatively rare, their exhibition brief and the major manifestations negativism, excitement and stupor were missing.

Case No. 24, unclassified, is noteworthy for the wealth of katatonic symptoms displayed. This patient was also one of two of the entire series who developed an outspoken stupor which here included resistiveness, mounting to the grade of negativism. The delusions were not well defined. The katatonia was least marked when the apprehensive-depressive factor was prominent and with the apparent waning of the latter it began to assume a dominant rôle. The irritability, however, increased markedly, is now a striking feature of the case, and is more or less closely associated with the katatonic symptoms. Many of these at least from an objective point of view bear considerable resemblance to early katatonia as seen in *dementia præcox*.*

* The difficulties which confront the clinician when he attempts to pass objective judgment upon the diagnostic value of even apparently out-spoken katatonic symptoms are considered practically insurmountable by Stöcker¹⁵ who seriously questions whether a difference really exists between katatonic stupor or excitement and their respective manic equivalents. Parallel columns from Kraepelin are quoted to prove the essential sameness of the two conditions. Stöcker feels that whatever dissimilarity is present is not explainable on the basis of the symptoms themselves, but rather on the effect of the change wrought by the "psychic characteristic of per-

The stupor for the first week was quite profound. Sensory stimulation failed to elicit any response, and attempts at passive motion immediately developed an exquisite muscular negativism. On the eighth day the patient began to take food from a spoon. During the second week automatic movements of the head and sometimes of the body appeared, the arc of motion being about 90° and the rate 25 times per minute. Any effort to inhibit these movements at once produced powerful muscular opposition. Since the cessation of the stupor the patient has been extremely irritable, inaccessible, resistive, usually mute, destructive and has violent scolding spells.

Case No. 25, is reported in some detail for three reasons. First, as a clinical problem it possesses more than the usual quota of interesting features. Second, it typifies a group which is unhesitatingly classed "late katatonia" by some observers, but which at least for the present, Kraepelin would retain among the pre-senile psychoses on the strength of the anatomical picture. He probably has it in mind for the future as the nucleus of a new classification. Third and most important it came to autopsy and the findings will be a valuable contribution to the pathology of unclassified mental diseases, particularly those which are katatonic in type and appear after the fourth decade. Extending over a period of 29 months, the psychosis simulated at various times, three distinct conditions, namely, involution or pre-senile depression, paresis and finally an undetermined katatonic process.

CASE REPORT.

CASE NO. 25. Admitted 4-12-1915, at the age of 51.

Family History.—The family stock is apparently sound, the histories of the grandparents and parents being free from any taint of mental disease or neuropathic tendencies. The father lived to be 80 and the mother is

sonality" which is the essence of each disease. In manic-depressive insanity the psyche of the patient is usually more or less conformable to that of the observer, therefore the connection and sequence between thought and act is reasonably patent. In dementia præcox, however, there is a psyche consisting largely of intrapsychic ataxia and blunting of emotional lability, which is totally at variance with that of the observer, who is therefore unable to place himself *en rapport* with the patient and for this reason regards his acts as disconnected and purposeless. If allowance be made for the "Grundpersonlichkeit" there is in katatonic stupor a retardation of the same set of psychic elements as in depressive stupor and in katatonic and manic excitement a similar hyperactivity.

clear and bright at 83. In the collateral branch there is one sister in the terminal stage of dementia præcox, and a brother who has disappeared. The four remaining, two brothers and two sisters, are normal and capable men and women.

Personal History.—The patient was fifth in the birth order, and was a bright baby, speaking and walking earlier than the other children. She had a social, practical and rather positive personality, and her judgment was valued by the other members of the family. Never married and voluntarily assumed the care of an invalid mother. At the age of 40 there was a brief mental disturbance lasting six weeks and ending in recovery. The history of this episode is very indefinite. Apparently it was precipitated by overwork, was abrupt in onset and manic-like symptoms predominated. After restoration to normality she again took up the thread of her former life. The psychosis had left her character-traits unchanged and she was as capable and efficient as ever until the onset of her final illness.

Present Illness.—In September, 1914, she rather suddenly became apprehensive and developed ideas of reference. She felt that some great calamity was to overtake the family and "that everything was to be lost." The posts on the street were figures which were watching the house. There was something which she could never name nor definitely describe, but it controlled, watched and worried her. This thing was often threatening and filled her with fear. Sometimes it said it was going to take everything the family had; once it told her to jump out of the window and she tried to do so. The affect in general corresponded to a state of agitated depression. On admission in April, 1915, the patient was clear and oriented, but more or less restless, uncommunicative and suspicious.

Physical Examination.—Rather poorly developed, with wasted musculature. Over the apices of the lungs the percussion note was dull and the breathing shallow. There was a moderate degree of arteriosclerosis, the systolic pressure was 145 and the diastolic 100. The right pupil was irregular in outline and reacted sluggishly to light. Fine tremors of the lips, facial muscles and the eye-lids. The urine showed a moderate amount of albumen. Serum Wassermann weakly positive, and the spinal fluid negative in the amount of 0.2 c. c. Menstruation had definitely ceased six months before the onset of the psychosis.

For five days following admission the patient maintained a non-committal attitude and succeeded in concealing her real state of mind. On the fifth day there was an abrupt transition to a condition of agitated apprehension, with self-accusation and considerable confusion. On the seventh day there was a period of brief but intense excitement, during which she attempted to kick and bite her nurse. This was undoubtedly a reaction to auditory hallucinations. She began to tell of a machine, "a sort of collector of thoughts which speaks to people." During the second and third weeks there was almost constant depression, agitation and apprehension. The patient was now no longer oriented, her confusion increased markedly from day to day and often she was inarticulate and mute. There were periods of violence again evidently dictated by vivid hallucinations. Food was

frequently refused and nasal feeding had to be employed. During the next two months a series of grandiose delusions developed. "Our estates are gorgeous." "My income is billions and billions." "I have banks in England and America." "I had invitations from ever so many people, from kings and queens to be queen." "I am queen of the world" are typical examples of her daily productions. Running through the fabric of such extravagant fancies there was still the thread of apprehensive-depression, which at times mounted to a veritable frenzy of fear. "Why man I have been through murders and murders. They took me around to all those murderers. They came and injected all that poison into me. Don't put that stuff down. Oh God! Oh God!" Again, "Don't you remember when they put me in that basket of boiling water?" These outbursts were usually accompanied by moaning, sobbing and wringing of hands. At times her utterances were hopelessly disconnected and frequently she was unable to put her thoughts into articulate language. Once when shown a pencil and asked to name it, a full minute elapsed before she was able to pronounce the word. She could repeat all the letters of the alphabet after the examiner. There was still deep confusion and constant restlessness, and in spite of frequent tube-feeding the weight declined. During the months of July and August, 1915, 21 months after the onset of the psychosis, the patient showed considerable improvement. She oriented herself, developed an interest in simple occupations and read a book of which she was able to give a fair account from memory. In September the consciousness again clouded and the orientation was lost. In October she made two attempts to strangle herself, once by tying a piece of ribbon and again a strip of linen around her neck. The restlessness, agitation and resistiveness reappeared and daily became more intense. In November and December there were two more serious suicidal attempts. Speech became constantly more difficult and at most consisted of a few scattered words or disconnected phrases. The patient was now practically negative. She assumed fixed attitudes and the head would be so firmly pressed against the chest that it was impossible to raise it. On the first of January, 1916, stupor developed, which lasted until her death on the 22d of March.

The resistiveness, impulsive violence and much of the destructiveness and food refusal made their appearance in close connection with hallucinatory paroxysms of remarkable vividness, in which the consciousness was deeply clouded. During the two months, marked by improvement, reorientation and clearing of the sensorium, they were scarcely in evidence. The fixation of attitude, which partook of true negativism, was most prominent just preceding the onset of the stupor. The stupor was profound, but at times strong stimuli elicited a response. The eye-lids fluttered in reaction to pin-pricks, the face flushed, the veins stood out on the forehead, tears started from the eyes and there was frequently a swallowing sound following passage of the feeding tube. Although there was never any suggestion of catalepsy, yet the muscular opposition was not always equally intense and often it was absent altogether. The urine was only infrequently retained. The patient occasionally changed position; put a finger to the nostrils and

opened her eyes. On the somatic side were the generally sub-normal temperature, with now and then an ephemeral elevation, the weak pulse, the slow and shallow breathing, a few vomiting spells, vaginal discharge, practically negative urinary findings and a progressive decline in weight from 92 to 58 pounds. The possibility of an undiscovered toxic process cannot be eliminated. In the absence of definite and clear-cut katatonic manifestations, and on account of the doubtful character of the stupor, "late katatonia" must be viewed with considerable uncertainty. However, this is distinctly one of those cases which "anatomy must decide" and the gross and histological findings will be most important in this connection.*

RÉSUMÉ.

The analysis of the psychosis appearing during and after the fifth decade discovers a fairly large percentage (25 of 117) in which on the grounds of a narrower symptomatology there is the apparent probability of a katatonic process. When subjected to closer scrutiny and contrasted with the entire clinical history and course, this probability dwindles to a doubtful possibility. It may be reasonably objected that since there is no real criterion, by which to measure katatonia, it cannot be decided on clinical evidence alone that certain questionable manifestations may not be truly katatonic after all. It is, of course, realized that such a decision is often impossible, but observation on early katatonia has formulated fairly definite characteristics for it and these are widely at variance with those of the usual so-called "late katatonia." Outspoken negativism, recurring excitement and stupor, and possibly mannerisms without which one would hesitate to diagnose katatonia during the second and third decades, were in the late psychoses usually conspicuous by their absence. The "negativism" was practically always resistiveness called out by environmental, affective and delusional factors; the "excitement" was not sustained and was generally not totally divorced from the surroundings, even when the orientation was defective and the consciousness clouded. The stupor, excepting possibly in one patient, was not typical for katatonia. The reaction to stimuli gave the impression that a marked retardation had been partially overcome with great difficulty and never was there a sign of the lightning-like movements, sometimes as quickly inhibited or reversed with which the true katatonic commonly breaks through the stupor.

* To be reported by Dr. Samuel T. Orton.

Of the psychoses brought into question, there were a few clear-cut cases of manic-depressive insanity, in which the "katatonia" was purely environmental and was largely a behavior response to the persecutory delusions of patients in whom irritability was often the most pronounced element of affect-life. The major proportion (9 of 25) comprised the involuntional-depression group. When the ruling emotions were intense the possibility of explaining certain of the katatonic-like symptoms (resistiveness, violence, screaming spells, fixed and peculiar attitudes) on the basis of "phylogenetic associations" was considered, and it seemed more natural here than in psychoses whose very essence precludes the play of strong emotions. When the affect was less sharply defined, the katatonic-like phenomena had a more monotonous and restricted character, and seemed less purposeful, yet a connection with the emotional factor was never entirely wanting. It may be pointed out that in the course of years, affect-like in a certain percentage of this group may become blunted and perhaps gradually fade out entirely to be replaced by an end state more or less suggestive of katatonic deterioration and that the evaluation of the katatonic symptoms should wait upon the final outcome. On the other hand, symptoms which are to be distinctive and diagnostic should also show these traits at the height of the psychosis when later complicating factors are less likely to confuse the observer. If their consideration is too long postponed, there is the danger of clothing them with an importance they did not possess, simply because the terminal status, which may in reality be the product of many added conditions, seems to be in a general sense indicative of their early prominence. One would expect to find in those rare cases of katatonic dementia præcox developing after the age of 40, the ear-marks of essentially distinctive katatonia. While the syndromes as a whole did constitute a fairly strong plea for "late katatonia," yet one cannot well help questioning why more determinative signs, such as true negativism and stupor did not appear. Again in one of the patients the revised date of onset because of additional history, indicates an earlier process, and in another the anamnesis is decidedly suspicious. It is particularly in the katatonic form of dementia præcox in which long remissions are found and for which also a fairly high recovery(?) rate is recorded. Retrospective investi-

gations of "late katatonia" should therefore take into account an appreciable margin of error arising from the fact that after many years the account of the early life is frequently unobtainable or unreliable and suspicious episodes may escape attention. Practically all of the cases, which fall outside of the manic-depressive or dementia præcox classification may be for convenience rather loosely grouped under the pre-senile insanities. Here, as at any life-epoch, the possibility of a katatonic-like reaction to infective-exhaustive and febrile states had to be at least borne in mind. Undoubtedly arteriosclerosis was also operative. Measured by strict clinical rule the majority of such symptoms departed from the usually accepted standards for katatonia, but often considerable doubt remained even after rigid inquiry. Before such cases are unhesitatingly placed in a classification, which is naturally and overwhelmingly associated with adolescence rather than with pre-senium, the pathologist must make a comparison test with early katatonia. As his opportunities for investigation are increased, he may be expected to link true clinical katatonia with more definite anatomical and histological findings. Thus far the work of Nissl and Alzheimer on "late katatonia" has not discovered any relation with the earlier process.

THE INFREQUENCY OF "LATE KATATONIA."

The infrequency with which "late katatonia" is reported, at least suggests that its diagnosis rests on an insecure foundation. Petrén found 24 cases beyond the age of 40; Shröder, 16 (earlier attacks in 4) and Zweig only 5. Contrasted with these figures are Urstein's remarkable statistics based on 3500 cases—2.5 per cent for men and 9½ per cent for women.

"LATE KATATONIA," MANIC-DEPRESSIVE INSANITY AND ARTERIO-SCLEROTIC DEMENTIA.

The late involution and pre-senile insanities, which furnish the largest quota of cases likely to be regarded as "late katatonia," occur during a life-epoch, when the mixed forms of manic-depressive insanity and arteriosclerotic dementia are apt to be intimately associated. The possibility of the co-existence of these two diseases rests on a fairly sound basis in that the pre-senile epoch

favors the occurrence of degenerative vascular changes, that manic-depressive insanity probably carries within itself certain predisposing factors (frequent oscillations in the blood-pressure and in the innervation of the vessels) which tend to lower the resistance of the circulatory apparatus, that the prognosis for manic-depressive insanity, which is overwhelmingly good during early and middle life, becomes quite uncertain just prior to the arteriosclerotic age, thus indicating the intrusion of a new and unfavorable complicating element, and finally that it is sometimes possible to isolate the features of each disease from the whole picture. For instance, an intrinsically unimpaired affective reaction may be present for years, gradually it declines and shows the obvious marks of emotional blunting, at last it is blotted out altogether and the unmistakable evidences of dementia appear, perhaps to be accompanied or succeeded by the focal effects of localized brain damage. Often too, however, certain manic symptoms, remnants of distractibility and flight, or depressive manifestations, melancholic delusions, may persist into almost the very terminal stages of the disease, to be exhibited along with advanced memory failure and the physical signs of gross brain lesions.

The disappearance of emotional life seems to be most gradual and insidious in those cases of manic-depressive insanity in which the depression has been maintained on a relatively low plane for a long time, and where the speech and movements of the patients are peculiarly narrow and restricted in type. The association between the affect and its expression in word and gesture, which was once fairly clear, now becomes more and more indefinite and with the loss of the former, the latter may be apparently perpetuated in a purely automatic manner. The connecting link has been broken and that which was once a somewhat monotonous reaction to a low-grade but definite emotional state, has become a purposeless and stereotyped formula of sound and act. If, at the same time, the dementing process, presumably arteriosclerosis, becomes more distinct, it may bring in its train a new group of katatonic-like symptoms, such as violent outbreaks with scratching, kicking, biting, screaming and destructiveness. Such manifestations are usually abrupt in onset and termination, often recur, are frequently accompanied by confusion, and in general resemble the expression of irritative phenomena. We may have then a number of katatonic-

like characteristics, which are apparently compounded of the remains of a former depression and an additional set of symptoms due to an added factor, possibly arteriosclerosis. This terminal stage is very apt to be misleading and to prompt the diagnosis of "late katatonia." However, one would hesitate to select from a group of dementia præcox patients in the final period of the disease, those cases which were once hebephrenic, katatonic or even paranoid. Here the dementia has reduced a number of once separate and individual groups to a more or less common level, from which all traces of former distinctive attributes have been eradicated. This is in a sense true of all deteriorating psychoses. The more advanced their course, the more blurred become their outlines and the more closely they resemble each other. An attempt to read back into the early history of any psychosis, from the scattered and distorted fragments remaining after the lapse of many years, is very likely to prove futile. If the "katatonia" observed in many of the pre-senile insanities is actually katatonia, then at least it represents a process which differs essentially from the katatonia of early life, such as is for instance most commonly encountered in dementia præcox. Here we have a symptom-complex, which is clear-cut enough to plainly signal out a number of cases from a larger and more general grouping; in the pre-senium we are generally dealing with an undeterminate set of isolated symptoms, which play only a subsidiary part, at least until the deterioration is well established. It is quite possible that a number of the "late katatonias" are merely manic-depressive psychoses unfavorably influenced and changed by arteriosclerotic dementia, and that the katatonic-like symptoms displayed are only an incidental end result and have little in common with the essence of either condition. The fact that focal symptoms are not always present is not of great significance, for it is recognized that in a large proportion of arteriosclerotic mental disease, such features may be absent for many years. Urstein admits that a certain percentage of his late katatonics suffered from paralytic seizures and gave other evidence of gross brain involvement. It must also be borne in mind that the difficulties which may stand in the way of the clinical recognition of an arteriosclerotic psychosis are commonly underestimated. The condition of the peripheral arterial system and the blood-pressure are far from being infallible

criteria. Advanced sclerosis of the surface vessels may, of course, co-exist with unimpaired mental capacity, and Romberg states that in only 10 per cent of arteriosclerotic insanity is the blood-pressure elevated.

"LATE KATATONIA" AND DEMENTIA PRÆCOX.

Although the extreme view that katatonia can occur only in conjunction with dementia præcox is no longer entirely tenable, yet it cannot be denied that it is only in this disease in which it is both common and distinctive in type. In spite of the frequency with which it is reported in other conditions, we must go back to dementia præcox if we wish to study it in its fundamental expression. Its essential features, namely, disassociation, absence of affective-reaction and peculiar detachment from the environment are here consistent with and not in contrast to the whole psychosis. When pure katatonia occurs in what is otherwise an "emotional" psychosis, it is perhaps well to postpone judgment for a time at least. Of four cases in early life, which showed well-developed katatonic episodes, but in which the manic-depressive coloring, plus a favorable outcome, inclined us to the more hopeful view, two have relapsed, one with probable and the other with positive dementia præcox symptoms. There is undoubtedly a sound reason for Kraepelin's unwillingness to accept unreservedly the katatonia which is encountered outside the schizophrenic group. The association between the symptom katatonia and the disease dementia præcox is so close and their nature so similar, that when we discover signs of the former in any psychosis, either organic or functional, we naturally subject it immediately to the clinical criterion of the latter, in order to see just how far it departs from the commonly accepted standard. If the katatonic evidence is clear-cut, prominent and long-continued, we would probably be willing to rule out entirely the possibility of the schizophrenic process.

There is little in the way of convincing argument to prove that dementia præcox may occur at that period in life when "late katatonia" is brought into question. In spite of the repeated liberal extensions of its boundaries, dementia præcox, with the exception of the paranoid forms, still remains peculiarly a disease of comparatively early life. The assertion that certain indefinite psychoses of the late climacteric or pre-senium are in reality

dementia præcox, disguised by the influence of the unusual life-epoch, is not well supported by the facts. It is usually the deterioration in these conditions, which is cited as main proof of their relationship to the dementia præcox group, but here the dementia is either accompanied by psychical and physical manifestations, which point to an organic origin, or else it is merely the final stage of a disease, which during its developmental period and active course presented an affect strong enough to set aside the possibility of dementia præcox. It is a negative point of some value, that those katatonic-like symptoms, which for many other reasons must be classified as doubtful, make their appearance principally at a period when katatonic dementia præcox must be regarded as something of a curiosity.

THE MODIFYING EFFECT OF CERTAIN INCIDENTAL MENTAL AND PHYSICAL FACTORS.

There is probably no epoch, especially in the life of woman, during which the development and content of mental disease is more markedly influenced by various inherent and extraneous factors, than the climacteric and pre-senium. These two periods are not often satisfactorily separable, they merge gradually one into the other, and the principal objective sign of the menopause, namely, cessation of the menstrual flow, is after all only a very unsatisfactory and variable criterion of the progress of internal and probably much more important processes, while the pre-senium is practically independent of actual age in years. The psychoses which arise during the fifth and sixth decades are extremely hard to interpret and present a most diverse symptomatology and this is undoubtedly due to the fact that apparently they are often as much the expression of certain mental and physical changes peculiar to these decades, than of distinct disease entities. Neither the frequency nor unusual character of these insanities need seem remarkable, if we recall that they appear at a time when important chemical and psychic alterations attendant upon the extinguishing of the sexual function and beginning regressive somatic processes all stand in close proximity. Further there is added even in normal women, the mental conflict springing from the necessity of attempting to make an adaptation to meet the demands of a new and often far from promising future. It is not at all strange,

that especially where an hereditary weakness already exists, such adaptation may fall far short of accomplishment and a long and severe attack of mental disease be the final outcome of the struggle. Are any of the symptoms displayed in the late psychoses, and particularly are any of the katatonic symptoms to be regarded as merely a pathological distortion of the characteristics, which practically every woman shows in greater or lesser degree during the climacteric and pre-senile years?

PERSONALITY AND CHARACTER-TRAITS.

Probably the personality is completed long before the fiftieth year has been attained. The formative period is over, the psyche is in a condition which is unfavorable for the reception of new influences and the character-traits, which have been shaped and moulded by the experiences of youth and middle life, may be expected to endure in their final form, even in the presence of mental disease, provided of course that such disease is not of a disorganizing and deteriorating type. Indeed, certain dominant trends often seem to be magnified and to stand out more prominently. We occasionally find patients who have perhaps inherited rather positive, strong-willed tendencies, which were displayed quite early in life, strengthened and increased, although of necessity in a measure controlled as later associations provided more points of contact with the environment and markedly emphasized during the climacteric years, in whom the katatonic-like phenomena bear the stamp of pure obstinacy. The resistiveness, the mutism, and at times the food refusal and destructiveness sometimes strikingly resemble an exhibition of bad temper on the part of a stubborn child. One of my patients, for instance, frequently declines to take the nourishment which has been ordered. Following the emphatic insistence of the physician or nurse, for whose authority she has a certain degree of respect, she will often finally yield, seize the glass, drain its contents in one gulp, then either set it back with great force on the table, or hurl it into a corner of the room, and conclude the performance by grasping the chair and thumping it so vigorously and repeatedly against the floor, that the arm pieces and rockers have several times been broken. All such episodes are accompanied by unmistakable irritability and anger, which is clearly expressed in the countenance and general

attitude of the patient. At times, the physician is able to cut short the outbreak by sternly insisting on better behavior. Somewhat similar features, although much less clear, were present in a few other cases of the series. Such manifestations differed from the katatonia of early life as exemplified by dementia præcox. They were in close contact and in fact apparently provoked by contact with the surroundings, were accompanied by considerable emotional display and stood out as completed, purposeful acts, as contrasted to the non-environmental, affectless, disassociated and purposeless movements of the true katatonic præcox patient. Their mechanism may perhaps be sought in the persistence of an inflexible and obstinate make-up, which in normal life was held at least partially in check, but which during the psychosis is given full sweep because every need for inhibition has been removed.

Investigation has shown that certain disturbances of affect-life and various peculiarities of conduct " may be as common as the numerous somatic symptoms, which accompany the establishment of the menopause and like them are to be regarded as practically physiological for that time of life. Of course, they are usually extremely mild and fleeting in the normal woman, yet they may be quite prominent and fairly long-continued in individual instances, which one would hesitate to class as pathological. Among the more usual manifestations, which make their appearance, even during the physiological climacteric, are feelings of jealousy, abrupt emotional oscillations, light depressive states, impulsive behavior and often quite *pronounced irritability*. The prototypes of these conditions may perhaps be found in the strong delusions of jealousy, the deep depressive coloring and the frequent outbreaks of angry irritability, which are encountered in some of the late psychoses. In five of my patients the latter reaction was strikingly evident, and in them the inaccessibility was marked. Attempts to overcome this *noli me tangere* attitude would call out protracted scolding spells, aggressiveness, and even actual violence. Of course, delusions probably also played a part in the productions of these katatonic-like episodes, but one felt that the irritability was the more constant and underlying factor, and that even indifferent stimuli were sufficient to set into motion a characteristic vocal and motor response.

THE AFFECT.

Perhaps the most usual emotional accompaniment of the late functional psychoses is a prolonged and often rather monotonous depression. Probably both its variety and character are in a measure determined by the period during which it occurs. The affect-life has, in a measure, exhausted itself by the frequently repeated and more intense demands of earlier experiences, further it has no doubt been influenced by the decline of physical and mental vitality, which begins at the menopause and unless stimulated by vivid delusional formation, it is very apt not to rise beyond a rather low level. As has already been mentioned, its expression in speech and movement partakes of the monotony and restriction of the emotion which gave it birth, and therefore often gives the impression of katatonic stereotypy, particularly if after many years the last remnants of the former are replaced by psychic deterioration, most likely of organic origin.

THE STATE OF THE CONSCIOUSNESS.

The general condition of the consciousness and the element of confusion is of interest in its possible relationship to the late katatonic symptoms. When it appears in conjunction with the climacteric and beginning physical regression of the pre-senium, it is at least suggestive of an imperfectly balanced metabolism, with consequent toxicity from the accumulation of katabolic products. Excluding those cases well beyond the years of menopause, four of my patients showed marked confusion, and in four more clouding was present, although much less evident. The resistiveness, impulsivity, and at times the destructiveness simulated a kind of uncertain struggle against an oppressive and possibly threatening environment. It was neither the purposeless and seemingly independent excitement of the dementia præcox patient, nor did it amount to the extreme degree of psychomotor activity seen in the deliria. Again, as in the katatonia of dementia præcox, the peculiar and complete severing of external relations was not present. There, although the patient frequently reveals by a chance word that the consciousness and orientation are retained, yet he is clearly living and moving in a detached sphere, whose revolution is apart from and has nothing in common with the world of other people. Here, in the late disturbances, although

the orientation is often totally lost and the sensorium deeply clouded, the patients are still closely bound to real, though misinterpreted, surroundings. Their productions prove that the remarks of fellow patients, the passing to and fro of nurses and others, the sights, sounds and daily happenings on the ward, are all fraught with meaning and not uncommonly are woven into the psychosis, coming to expression in a distorted and fragmentary manner. In the case reported in detail, the katatonic-like phenomena were in especially close connection with the confused-hallucinatory periods, contact with the environment was probably never entirely broken, and even during the stupor, strong stimuli elicited at least a partial response.

THE DELUSIONS.

The type of delusions which occur also bespeak the influence of a life-period, during which the whole economy is deeply stirred by an important and far-reaching process (climacteric) and toward whose close begins the physiological decline. In the presence of numerous sensations and disorders, referable to the genital, circulatory, nervous and digestive systems, it is not unnatural that the attention should be sharply focused on the body. Hypochondriacal and somatic delusions are more common than somato-nihilistic. However, when nihilism is present it often involves the stomach and intestines and may dictate the refusal of nourishment. In the cases studied it was apparently a more or less logical deduction from false premises and was generally consistently and strongly maintained. It did not resemble the contradictory abstinence of the katatonic of early life, who may refuse food at one meal and then devour double or triple quantity at the next, or disregard what is placed before him only to pilfer his neighbor's supply.

SEX.

The infrequency of reported "late katatonia" in the male sex is rather astonishing. Shröder found only 3 in a series of 16, and Urstein places it as four times as common among women. No such disparity exists in early katatonia. Its postponed development must be either favored by some unknown sexual factor in later life, or else and what seems more probable, it is only more or

less closely simulated by the far more important and peculiar influence of the climacteric-pre-senile epoch on the body and psyche of woman, and on the expression and content of the late developing psychosis of other types.

KATATONIA, A DISEASE OR SYMPTOM-COMPLEX.

That a katatonic symptom-complex may occur in the greatest variety of conditions has long been recognized. It has been described by numerous observers * in toxic and exhaustive states, typhoid and other acute infections, as a post-operative sequel, in renal insufficiency, organic brain disease, abscess and tumor, cerebellar hemi-atrophy, head injuries, general paralysis, epilepsy, hysteria, manic-depressive, and other so-called functional psychoses. Probably its rather striking characteristics, when it does appear, have led to frequent attempts to gather all its manifestations together under one heading and to elevate them to the dignity of a distinct disease-entity. It must be remembered too, that Kahlbaum advanced this view in his original description. Later, Spitzka, Hecker, Meynert, Hammond, Neuendorff, Neisser, Fink and Brosius all wrote of it as a separate form of insanity and more recently Urstein assigns to it a broadly inclusive and very important rôle. The very fact that it is so widely distributed should create some doubt as to its significance as a primary process. Again, it may be very mild and transient in one case and dominant in another, a clear-cut, early appearing and long-enduring symptom in one condition and a doubtful and late one in another, and in one patient have a mechanism more or less naturally explainable on the basis of the remainder of the psychotic content, and yet be totally inexplicable in another. To believe that stupor, catalepsy, stereotypy, mannerisms, mutism, and indeed the whole list of katatonic symptoms, must always be produced by the same combination of circumstances and have a similar meaning, would seem as unreasonable as to assert, for instance, that convulsions, coma, cough, or anorexia from the province of internal medicine are always called out by the same basic factors and always have a uniform pathology. Even in dementia præcox considered as a whole,

* Steinheil, Bonhoeffer, Bernheim, Régis et Lalanne, Köttgen, Schmidt, Schäfer, Anton, v. Mural, Séglas, Näcke, Ideler, Kirby, Taft.

although each of its forms, including the paranoid is apt to show some katatonic admixture, there is scarcely sufficient clinical evidence to warrant us in revising the usual opinion that dementia præcox is the disease and katatonia the symptom. At most katatonia may be granted a distinctive but still sub-sidiary rôle and be regarded as bearing a somewhat similar relation to the parent condition, as do the sub-divisions of typhoid fever or pneumonia to the original diseases of which they are but the clinical and anatomical derivatives. Especially in the late psychoses is it important to keep in mind the symptomatic value of the katatonic signs and not to bring them into the foreground at the expense of other portions of the picture. In the first place, we are dealing with a period in which katatonia is exceedingly rare, and further if we study the entire life histories of the conditions in which it arises and separate out the symptom groups presented, we are likely to find that the "katatonia" will be somewhat dwarfed by other considerations, such as the affective reaction, the state of the consciousness, perhaps as a measure of toxicity, the delusional content and the general effect of destructive organic brain changes.

CONCLUSIONS.

1. The clinical evidence of true katatonia in the late psychoses is neither prominent nor distinctive enough to justify the assumption of a late katatonic disease process and during the climacteric-pre-senile period it is rarely more than a symptom-complex of doubtful diagnostic value.

2. In mental disease occurring during and after the fifth decade, with the possible exception of outspoken dementia præcox, the katatonic manifestations are essentially unlike those of early katatonia and the generally superficial resemblance is often explainable on the basis of certain incidental factors.

3. Among the factors which may be operative in giving a katatonic coloring to the insanities of the climacteric-pre-senile epoch, and which are in some sense peculiar to this period, may be mentioned the relative inelasticity of affect-life, with a tendency to the development of a monotonous depressive phase, the inclination to marked irritability, which may be a pathological increase of the rather common and almost physiological reaction of the menopause, the confusion and disordered condition of the conscious-

ness, which is probably connected with toxicity due to epochal metabolic disturbances, the influence of somatic and nihilistic delusions, possibly related to similar physical alterations, and finally the effect of regressive circulatory changes which may complicate and alter the expression of the late so-called functional psychoses.

4. "Late katatonia" which is true to type may possibly appear in late dementia præcox, but usually even here it cannot be clearly established clinically, and further katatonic dementia præcox, with an onset after the fourth decade, is extremely rare and practically always open to the suspicion of being a relapse from an earlier psychosis, which had become quiescent.

REFERATE.

1. Kahlbaum: Die Katatonie oder das Spannungsirresein, 1874.
Brosius: *Allgemeine Zeitschrift für Psychiatrie*, XXXIII, 770.
2. Tuke, Hack: Mental Stupor, *Transactions of Int. Med. Congress*, Vol. III.
3. Lewis, Bevan: *Text-Book of Mental Diseases*, 1890.
4. Kraepelin, Emil: *Psychiatrie*, VIII Auflage, III Band, Teil II, S. 949.
5. Urstein, Maurcy: *Spätspsychosen Katatoner Art.*, Berlin, 1913.
6. Kraepelin, Emil: *Psychiatrie*, VIII Auflage, III Band, Teil II, S. 914.
7. Kraepelin, Emil: *Psychiatrie*, VIII Auflage, II Band, Teil I, S. 533.
8. Bleuler, E.: *Dementia Præcox*, *Handbuch der Psychiatrie*, Aschaffenburg, Spezieller Teil, IV Abteilung, I Hälfte, S. 198.
9. Spencer: *Principles of Psychology*, London 1855, from Cannon, Walter, *Bodily Changes in Pain, Hunger, Fear and Hate*, 1915, p. 186.
10. Wundt, W.: *Outlines of Psychology*, Eighth Edition, Translated by Judd, C. H., 1907, *Emotions*, p. 188.
11. Kirby, George H.: The Catatonic Syndrome and its Relation to Manic-Depressive Insanity, *Journal of Nervous and Mental Diseases*, Vol. XL, 1913, p. 694.
12. Bonhoeffer, K.: *Die Psychosen von Prof. Dr. K. Bonhoeffer*. *Handbuch der Psychiatrie*, Aschaffenburg, Spezieller Teil, III Abteilung, I Hälfte, S. 19.
13. Stöcker, W.: Besteht zwischen einem Katatonischen Stupor und Erregungszustand einerseits und einer Depression, vielmehr depressivem Stupor und einer Manie andererseits ein grundsätzlicher Unterschied und worin besteht dieser. *Zeitschrift für die gesamte Neurologie und Psychiatrie*, XXXII Band, I Heft, March 11, 1916, p. 39.
14. Stedman, Henry K.: *Insanity, Climacteric*. *Reference Handbook of Medical Sciences*, Vol. II, p. 116, and Urstein, Maurcy: *Spätspsychosen Katatoner Art.*, Berlin, 1915, S. 5.

Proceedings of Societies.

AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION.

PROCEEDINGS OF THE SEVENTY-THIRD ANNUAL MEETING.

NEW YORK, TUESDAY, MAY 29, 1917.

FIRST SESSION.

The Association convened at 10 a. m. in the north ball room of the Hotel Astor, New York, and was called to order by the President, Dr. Charles G. Wagner, Binghamton, N. Y.

THE PRESIDENT.—*Ladies and Gentlemen:* I have the honor to declare the seventy-third annual meeting of the American Medico-Psychological Association now in session. Its proceedings will be opened with prayer by the Rev. Anson P. Atterbury of New York.

The invocation was then offered by Rev. Dr. Atterbury.

THE PRESIDENT.—It is an exceedingly fortunate circumstance for our Association that this meeting happens to occur during an interval between the remarkable and enthusiastic demonstrations in New York City in honor of our distinguished visitors from England and France and others who are to come from Italy and Russia in the near future. We are, indeed favored this morning in having with us His Honor, the Mayor of New York, who has kindly consented to come here to bid us welcome to this great city. The Mayor is a busy man; his time is called for in many directions to meet the great business of his office and it is a high compliment to us that he has taken the time to come here for this occasion. I have very great pleasure in introducing the Honorable John Purroy Mitchel, Mayor of New York.

MAYOR MITCHEL.—*Mr. President, Ladies and Gentlemen of the American Medico-Psychological Association:* The city of New York, through me, extends a very cordial welcome to members of this Association. This city is always glad when a great association, representative of a profession or a business contributing to our social or our commercial life selects this city as the site for its annual convention. It is particularly appreciative that this Association, on the seventy-third occasion of its annual gathering, representing, as it does, a part of perhaps the greatest of all professions which has contributed so tremendously to the welfare of mankind should have chosen this city as the site for this meeting. Usually we attempt to point out those things within the field of the city's municipal effort, that may be of direct interest to the associations which choose the city as their

meeting place. In this instance we are not able, perhaps, to point to institutions devoted to the study and the care of the insane since the state has taken over for the most part the care of the insane. Yet, the city still has jurisdiction over one group which I think might come within the purview of your work; I refer to the mental defectives as distinguished from the insane.

When the present administration assumed office here in New York there existed on Randall's Island an institution devoted to the so-called care of the feeble-minded. When we came to study the actual conditions in that institution, which was committed to the care of the Department of Charities, we found that not alone the neglect of the scientific side of the work of the institution but the neglect in the matter of mere physical care was such as to constitute of that institution a reproach to any civilized community.

The department undertook a study. After much effort and very considerable and powerful opposition, the incompetent superintendent of that institution was removed, a new superintendent appointed, a plan was laid down for the reconstruction of the entire physical plan and a new method of administration devised. The city of New York has appropriated up to the present time, measured by the period of this administration, \$1,600,000 for the rebuilding of this institution on Randall's Island. It has invited the best advice that it could obtain in the United States. The new institution is being constructed under the general supervision of Dr. Fernald than whom I deem there is no greater authority in this country; and we feel that when the work which has already been initiated has been completed we will be able to point here in the city to the best administered and best equipped institution for the care of the feeble-minded in the country.

The change in the point of view of the city toward the feeble-minded children, the change in the character of the care that these helpless wards of the community have received and are now receiving is merely illustrative of the change in the point of view and in the method of treatment of the insane that has taken place during the past half century; from treatment which regarded them practically as social outcasts, as people almost beyond the purview of the law, they have come to be regarded as sick and the treatment which is now being accorded to these unfortunates is based upon scientific research and upon scientific principles. To that result, Mr. President, I understand that the members of this Association have contributed in a very large degree. For that result the community owes to your profession and to your Association its appreciation and its thanks; and it is to that acknowledgment as well as to the appreciation individually of the members of this Association and of your profession that I have come to testify on behalf of the city of New York and to bid you a most cordial welcome. (Applause.)

THE PRESIDENT.—It is indeed most gratifying to find that a public official in so great an office as that of Mayor of the city of New York can find time to study in detail the great problem of the scientific care of the mentally

defective. Mayor Mitchel has given us ample evidence in the address to which we have listened, not only of his profound knowledge of this subject but of his great interest in the welfare of an unfortunate class of human beings. I am sure that I voice the sentiments of this Association in extending to the Mayor our heartfelt thanks for his able address and his cordial welcome to New York. (Applause.)

We have with us on this occasion a distinguished physician, a representative of an old and honored organization, a physician who has attained eminence in this great city as a practitioner of medicine, as a consultant in many hospitals, as a teacher in the medical schools, and a man who is altogether a commanding figure in the profession. I have the honor of introducing Dr. Walter B. James, President of the New York Academy of Medicine. (Applause.)

Dr. James, in his address of welcome, said that it was unusual for him to address so analytical a gathering as a convention of psychiatrists. To be chosen to extend a greeting to the Association on the part of the medical profession of New York was not only a pleasure and an honor but an inspiration. He would not venture to speak in any way for the psychiatrists of the city as they would be represented by their own spokesman. It seemed to him that there had been few movements in the past half century fraught with such great possibilities of good to man as the development of modern psychiatry. Although the study of the abnormal mind went as far back as any study of any part of the human body, there seemed to him to be developing the beginning of an entirely new practice of this specialty; and possibly the explanation might be a better understanding on the part of the people at large. He would take the liberty of indulging in some mild criticism of a tendency of psychiatrists which also might be applied equally to all scientists, especially youthful scientists; this was to use long and complex words, obscure terms. He was pleased to note on the program a proposed discussion of plans designed to bring psychiatry more closely and intimately into the teaching of the medical schools; in his judgment there were many things taught in the medical curriculum that might much better give place to psychiatry. Certainly in his branch of medicine it was becoming realized that the highest development in internal medicine was absolutely impossible with a knowledge of psychiatry.

Dr. James stated that he was glad to substantiate Mayor Mitchel's claim that the charitable institutions of the city had been emancipated from political taint.

Finally it was a very great pleasure for him on behalf of the medical profession to offer to the members of the Association the warmest kind of welcome and to express the hope and belief that their deliberations might be productive of the very highest possible result. This he believed could be achieved in any community through proper awakening of the public spirit. (Applause.)

THE PRESIDENT.—Whether or not Dr. James' "number" on the program is viewed as a tenor solo as he has suggested, makes very little difference,

I think, to us, if I may judge from the close attention you gave him during his address; certainly, the Association gave him ample evidence of its appreciation. His allusion to the multiplicity of terms in psychiatry that often becloud its meaning reminded me of a medico-legal case that occurred in this city some years ago in which one of the experts indulged in a great deal of medical terminology, so much so that after explaining his views repeatedly and at length, the court, the jury and everybody else seemed to be more or less hazy as to his meaning. Irvin Cobb, in reporting the testimony in one of the newspapers on the following day, facetiously alleged that at this point the attorney for the prosecution arose and addressing the court said, "Your Honor: Will you please instruct the witness to explain his testimony once more so that *nobody* will understand it?" (Laughter.) I am sure we are very grateful to Dr. James for his excellent address.

New York City may justly claim to be the home of the ablest neurologists in America. The professional men in this field, in this great city, have no superiors in the world. As teachers of medicine in our medical schools, as diagnosticians and practitioners in our hospitals, and as physicians in the community, they command the confidence and respect, not only of the people to whom they minister but of that much more critical world, the medical profession. Among the eminent men in this body none stands higher than the professor of mental and nervous diseases in the Cornell and Bellevue Hospital Medical Schools. I now have pleasure in introducing Dr. Chas. Loomis Dana, of New York.

DR. DANA.—*Mr. President, Ladies and Gentlemen:* I hold no place in psychiatry which justifies me in being put into the limelight in this way. But, while not a member of this Association, I have followed and studied its work for a great many years and I have recognized its progress and its ever widening sphere of usefulness, and I welcome you gentlemen as fellow physicians now forming a band of workers very greatly essential to the health of the state and the progress of medicine. In my early days your Association was looked upon rather obliquely by neurologists, and some other critics, as one suffering from lack of progress; as one given over to the care of agriculture and administration rather than to medicine and science; as one in which the raising of potatoes and fighting politicians—two occupations that have excellent possibilities—especially at the present time—that these were engaging your attention more than the work of the laboratory. I remember that in my salad days I wrote an essay entitled the "Asylum superintendents and the Needs of the Insane." At that time I don't think I had ever seen an asylum superintendent nor any need of the insane; but my conclusions, as I remember them, were all the more emphatic that the superintendents and their administrative defects should be at once removed from civil life. Since those days a new spirit has developed in the field of psychiatry.

Once psychiatry was shut up in four walls and was looked at somewhat askance; but now the psychiatrist has come down into the market place and

his service is demanded in the prisons, in the schools, by the employers of labor and by our government at the present time in organizing units fit and ready for war.

Probably all of you have heard of the figures, Dr. Bailey a short time ago stated that of the 300,000 troops sent from Canada there were 180,000 casualties and out of these casualties, as I recall, about 12 or 13 per cent were represented by nervous and mental diseases and that percentage was larger than all the casualties due to other disturbances befalling the medical men of all other specialties. You know also that whereas in ordinary times of peace the percentage of insanity is about 2 per thousand, this, in war times runs up to a ratio of 9 or 12 per thousand.

Now, in so far as the medical institutions of New York are of interest to you I don't know that I need say very much. You know what we have here; we have, as the Mayor has said, no great institutions in this city for mental diseases that are under municipal control. You know, however, that we have the largest state hospital in this country and perhaps in the world and I am sure its opportunities for studying this work will be offered to you. Psychiatry includes now the study of mental defects and abnormalities and I second the hope of the Mayor that you will take an opportunity to visit Randall's Island and see what work it is proposed to be instituted there. The Island houses and cares for 2000 children and young adults and they form an intensely interesting group of cases, illustrating modern methods of treatment and education. I think, too, that the activities which are going on in Bellevue Hospital will be of interest to you. There has been organized there, under Dr. Gregory, a system by which the alcoholics of the city, numbering nine or ten thousand a year, and the drug addicts are cared for; and there are some new methods of managing these groups of cases which are being carried out.

There is an institution on 67th Street, The Neurological Institute, where the connection between neurology and psychiatry is maintained and where we are trying to care for organic neurology and those borderland cases which are partly psychopathic and partly neuropathic. It is a modest institution but it is of a kind that ought to be developed in all large centers of the country and I believe that it is going to be the model for further work of this kind.

We ask your attention and criticism to the kind of work we are trying to develop here and I hope that you will find instruction and profit and will be free to give us suggestions and criticisms of the work we are doing.

I repeat, then, Mr. President, that in the name of the neurologists and psychiatrists, I welcome, most cordially, this Association to the city of New York.

THE PRESIDENT.—Permit me, Dr. Dana, to extend to you the thanks of our Association for your very kind address of welcome.

We have with us this morning a distinguished citizen of New York, whose presence here gives great pleasure, especially to all of the older members of the Association; a physician and surgeon of New York whose

activities cover a long period, a period almost equal to the entire life of this Association, which is 73 years. A successful teacher of medicine, an able editor of medical journals, a writer of great ability, an author of text books on medicine and surgery, a contributor to our journals on many topics interesting to physicians; a physician, eminent alike in his hospital work and in his private practice; conspicuous in his life-long connections with public charities and with public health; a man whose lofty ideals have been an inspiration to all who have known him.

I now have the very great pleasure of introducing the nestor of the New York medical profession, Dr. Stephen Smith. *

Dr. Smith, who was greeted with great applause, spoke as follows:

Mr. President, Members of the Association, Ladies and Gentlemen:

This Seventy-Third Annual Meeting of the American Medico-Psychological Association forcibly reminds me of a similar event which occurred in the year 1852. I refer to the Seventh Annual Meeting of the "Medical Superintendents of American Institutions for the Insane," which met on the 18th day of May of that year at the Irving House at the corner of Broadway and Chambers Street.

Being a graduate in medicine of but one year and an entire stranger in the city I naturally had much leisure for other entertainment than attending my patients. I was attracted to the sessions by the novelty of seeing the practisers in this branch of medicine and listening to their discussion of the weird subject "insanity."

As the Association of Medical Superintendents of American institutions for the Insane of 1852 was the American Medico-Psychological Association of to-day in its infancy, it may be pertinent to this occasion if, as a spectator of its Seventh Annual Meeting, I give my impressions of the personnel of its members and the subjects discussed. The number of registered members in attendance was 26 and among the names we recognize the pioneers of American psychiatry. The absence of two founders was noticeable, viz.: Dr. Samuel Bayard Woodward and Dr. Amariah Brigham, both of whom had recently died.

The President was Dr. Luther V. Bell, of the McLean Asylum, Somerville, Massachusetts, a tall, well-proportioned man, of courtly manners and adapted to the position of presiding officer of such a dignified body. He took a deep interest in the papers presented and skillfully brought before the members the various subjects for discussion.

Among the more notable members were Dr. Isaac Ray, Butler Hospital, R. I.; Dr. Edward Jarvis, Dorchester, Mass.; Dr. John S. Butler, of The Retreat for the Insane, Hartford, Conn.; Dr. C. H. Nichols, Bloomingdale Asylum, N. Y.; Dr. T. S. Kirkbride, Pennsylvania Hospital for the Insane, Philadelphia; Dr. H. A. Buttolph, State Lunatic Asylum, Trenton, N. J.; Dr. S. Hanbury Smith, Lunatic Asylum, Columbus, Ohio; Dr. Francis T. Stribling, Western Lunatic Asylum, Staunton, Va.; Dr. Thomas F. Green, State Lunatic Asylum, Ga.; Dr. C. Fremont, Canada.

The members of the Association impressed me as educated gentlemen of a higher type of professional character than I had been accustomed to meet. The President, Dr. Bell, and several others answered well to the description of the founder. Dr. Woodward, of whom it is said, "His personal appearance was commanding, and his carriage majestic He was erect, and, though full in figure, his motions were quick and graceful. Although very civil and acceptable to all he seemed born to command. Dignity and ever-enduring cheerfulness sat upon his countenance"

The session continued five days and the subjects discussed related chiefly to the construction, equipment and management of institutions for the insane. The proceedings were published in an eight-page pamphlet. Dr. Ray read a paper on the following subject assigned to him by the President:

"On the best methods of saving our hospitals for the insane from the odium and scandal to which such institutions are liable, and maintaining their place in the popular estimation; including the consideration of the question, how far is the community to be allowed access to such hospitals."

On motion of Dr. Kirkbride it was resolved:

"That the standing committee on construction of hospitals for the insane be requested previous to the next meeting of the Association to prepare a series of resolutions or propositions, affirming the well-ascertained opinions of this body in reference to the direction, organization and discipline of hospitals for the insane."

Dr. Stribling read a dissertation:

"On the employment of male attendants in the female wards of Lunatic Hospitals."

Dr. Kirkbride read a paper:

"On the comparative advantages of steam and hot water in heating hospitals for the insane, large and small, with an attempt to fix the ratio of radiating surface to the space to be warmed in the climate of the northern sections of the United States."

Dr. Jarvis made a partial report:

"On the connection between Insanity and crime."

The Association discussed:

"The proper disposition of insane criminals in state prisons."

Such were the subjects which engaged the thoughts and deliberations of the founders of your Association two generations past. It was the period of the custodial care of the insane and the location of asylums, the construction of buildings, their equipment, the methods of commitment, the mechanical restraint of the insane and similar subjects were living, vital questions. Insanity as a disease was based on the Pinel-Esquirol classification, viz.: its "symptomological expression." The brain as "the medium of sensation, will, and even thought, the highest of psychic functions," was a sealed book except to a few laboratory students. The somatic doctrine of the German schools, as the basis of interpretation of all psychic phenomena, had made a slight progress in this country. It is highly creditable to the genius of Dr. Luther V. Bell, President of the Seventh Annual

Meeting of this Association, that he combated with great force the French theory of symptomatology and was sustained by van der Kolk, of Holland, Morel, of France, and other authorities. From these facts we infer that at the period referred to, 1852, neither insanity nor psychology had a scientific basis and that the superintendents of institutions for the insane were devoted to the care rather than to the cure of the inmates.

It is a far call from 1852 to 1917. The child of seven is now the sage of seventy-three. We scarcely trace in the latter a lineament of the former. The membership of 26 in 1852 was 827 in 1916; its constituency was formerly limited to a few states, but now it includes the United States and also Canada, Cuba and Porto Rico; its eight-page pamphlet of proceedings is now a volume of 400 to 600 pages, embracing every subject relating to insanity and the care of the insane. Even the name of the infant Association is but an item of record in history. The vast improvement in the care and treatment of the insane during the period 1852-1917 is a matter of common knowledge. That the initiative of these improvements and their practical application have been the fruitage of the intelligent and consecrated devotion of the members of this Association, impartial history will record in detail.

Members of the Association, I esteem it a great, indeed a remarkable privilege, that I am permitted to join in welcoming you to the hospitalities of New York City. It is a matter I think of record that the annual meetings of your Association in this city have given an impulse and an inspiration to its members, inciting to higher ideals and renewed consecration to the service of the insane. At no time in its history has New York furnished such facilities as now for education in the more abstruse medical sciences. Its 75 hospitals specialize every form of disease. Its medical colleges teach the principles and practice of the medical sciences and arts clinically, and its laboratories of research unfold the ultimate elements of health and sickness. These are all open to your visitation, inspection and inquiries. This is the sixth annual meeting of your Association in this city and I can assure you that the discussions in your meetings have a reciprocal effect in stimulating public inquiry and professional research in regard to the care and treatment of the insane in this city and state.

President Wagner, far back in the eighteen-eighties, I recall your cheerful manner and happy and helpful remarks to patients as we passed from bed to bed in the Utica Asylum. Your kind and sympathetic manners reminded me of Dr. Isaac Ray's description of the "Good Superintendent." "He never grudges the moments spent in quiet, familiar interview with them for thereby he gaineth many glimpses of their inner life that may help him in their treatment." I congratulate you on the occasion of your exaltation to the highest honors of your profession. Your success as superintendent and your elevation to the Presidency of this Association, has verified Dr. John P. Gray's remark, "Wagner will succeed in what he undertakes." I cannot resist the temptation of stating in this connection the pleasure it had given me to notice from time to time the progress in their profession of the young assistant physicians whose acquaintance

I made in the hospitals for the insane in this state in the period 1882-1888. Macdonald, Blumer, Brush, Pilgrim, Wagner have attained to the Presidency of this Association, the highest honor in the gift of the profession.

Looking backwards through the long vista of 65 years, I realize that the workers in the field of American psychiatry, whom I knew in their active days, are now silent forever. In bringing to you, at this your Seventy-Third Annual Meeting, a greeting from one who attended the Seventh Annual Meeting of your Association, I may repeat the words of Job's messengers, "I only am escaped alone to tell thee."

THE PRESIDENT.—In expressing to Dr. Smith the thanks of the Association for his very interesting address, I cannot let the occasion pass without offering a personal expression of appreciation, for I have long felt that I too was one of Dr. Stephen Smith's pupils—one of his students. It is now more than 30 years since as an assistant physician I entered the Utica State Hospital, then known as the New York State Lunatic Asylum, but nothing stands out more clearly in my memory of that time than the visits of Dr. Smith as the State Commissioner in Lunacy. Dr. Smith made his visits at the institution, spending many days at a time, going through the wards and seeing the patients, personally talking with them and encouraging them. He was not only interested in the patients but he was very kind to the assistant physicians on the staff. He never tired of drawing upon his inexhaustible experience and fund of information for the benefit and education of those young men.

Dr. Smith was far in advance of his time in those days. He appreciated the wrong that was done the insane by detaining them in the county poor-houses and he not only made continuous effort to have them removed to state institutions for their better care but drafted a law for the purpose of securing that end. The bill failed of passage during his term as commissioner owing to political interference at Albany, but a few years later, with some amendments, it passed the legislature and became the State Care Act, under which all of our institutions for the care of the insane in the state of New York are operating to-day. (Applause.)

So, to Dr. Smith we owe the great impetus which resulted in the emancipation of the insane of the state of New York from the poorhouse care that existed throughout the state prior to the last decade of the nineteenth century.

Dr. Smith has always been deeply interested in the upbuilding of the state hospitals. He was one of the pioneers in organizing their training schools for nurses. He did more to establish these schools in our state hospitals than any one else; and at the first graduation exercises, which were held in the early eighties in the Buffalo State Hospital, if I remember correctly, Dr. Smith made the graduation address to the nurses. On behalf of the Association, Dr. Smith, I thank you for coming here this morning and giving us such a splendid address and I hope you will enjoy many years of good health in the future. (Great applause.)

The reports of the committees are now in order. The first report is that of the Committee of Arrangements, Dr. Carlos F. MacDonald has been indefatigable in his efforts to provide for the entertainment of the Association at this meeting and will now address you in making his report.

DR CARLOS MACDONALD.—*Mr. President, and Fellow Members of the Association:* Your Committee of Arrangements feels that it has been singularly fortunate in securing such a galaxy of distinguished speakers to attend here this morning for the purpose of welcoming the Association to the city of New York.

As the work of securing these speakers was delegated to me, as Chairman of the committee, I may be pardoned for expressing a sense of personal gratification which I feel respecting the success attending my efforts. I must confess that, knowing what a busy man he is, and how excessive are the demands upon him, both official and social, I approached His Honor, Mayor Mitchel—who, by the way, is one of the best mayors New York has ever had—with not a little misgiving as to obtaining a favorable response to my invitation on behalf of the committee to come here and deliver an address of welcome to the Association. In fact, I was quite prepared to meet with a courteous refusal, and was agreeably disappointed when His Honor most graciously and willingly consented to come.

The other speakers, Doctors Stephen Smith, Walter B. James and Charles L. Dana, all eminent men of our own profession, are too well known to the most of the members of this Association to require any special comment from me beyond saying that I am sure I voice the sentiments of the Association when I say that we all feel highly honored and greatly indebted to these gentlemen for their gracious attendance here to-day, and I may be pardoned for making special mention of Dr. Stephen Smith—who was my honored preceptor when a medical student—whose eminent attainments in surgery, sanitary science, public charities, a successful teacher of medicine, and as State Commissioner in Lunacy in the state of New York, place him at once among the nestors of our profession, which he has conspicuously adorned for nearly three-quarters of a century.

The Committee on Arrangements has also been fortunate in securing contributions to the amount of \$975.00, which we hope will be ample to meet the necessary expenditures of our program of entertainment for the Association. It would seem proper in this connection to mention the name of a gentleman who, although not a member, is well known to nearly every member of this Association—I refer to Mr. C. W. McCarty, of the American Laundry Machinery Company. Mr. McCarty volunteered to undertake the onerous work of soliciting contributions—in other words, of doing the begging, a work in which I think no member of the Committee of Arrangements could possibly have been successful without his assistance.

The program for the social entertainment of the members of the Association and their families and guests is as follows:

On Wednesday, there will be an excursion on the steamer *Wanderer* around New York Harbor and up the Hudson River. The boat will leave

the pier, East 34th Street, at 1.30 p. m., returning about 5 p. m. A buffet lunch will be served on the boat. The committee requests that members who intend to take this trip, including their families, will please register early in order that ample accommodations may be provided; and, also for the reason that the banquet department of this hotel desires to know how many will probably have to be served with refreshments on the evening of the President's reception. On Wednesday evening, after the annual address by Edwin G. Conklin, Professor of Biology, Princeton University, the President's reception will be held in the ball room of the Hotel Astor at which refreshments will be served and dancing will follow. On Thursday afternoon the ladies in attendance are invited to take a sight-seeing tour by motor busses, leaving the Hotel Astor at 2.30 p. m. The trip will include Riverside Drive, with a stop of 15 minutes at Grant's Tomb, returning through Central Park and Fifth Avenue. This covers substantially all that has been arranged for in the way of social entertainment.

In this connection the committee would suggest the following places of psychiatric interest in and near New York—that is, in Greater New York and vicinity: Manhattan State Hospital and Psychiatric Institute, Ward's Island, reached by steamer from the foot of East 116th Street, boats run every half hour; Brooklyn State Hospital, Clarkson Street and Albany Avenue, subway to Atlantic Avenue, Flatbush Avenue car; Kings County Hospital, Psychopathic Pavilion, near the Brooklyn State Hospital; Manhattan State Hospital for Criminal Insane, Beacon, N. Y., reached via New York Central Railroad; Kings Park State Hospital, Kings Park, L. I., about 45 miles from New York City, reached from Pennsylvania Station via Long Island Railroad; Central Islip State Hospital, Central Islip, L. I., about 40 miles from New York, reached from Pennsylvania Station via Long Island Railroad; Bloomingdale Hospital, White Plains, about 22 miles from Grand Central Terminal; New York City Children's Hospital and School, Randall's Island, boat from E. 120th St., every half hour; Bellevue Hospital, Psychopathic Department, East 28th Street and First Avenue, reached by 23d Street car to First Avenue; Police Laboratory, Police Headquarters, 240 Centre Street; Psychiatric Clinic, Department of Correction, Blackwell's Island, ferry from foot of East 53d Street; Children's Court, Psychiatric Clinic, East 22d Street, between Lexington and Third Avenues; Sing Sing Prison, Psychiatric Clinic, Ossining, 30 miles from New York, via New York Central; National Committee for Mental Hygiene, 50 Union Square.

The work of the Committee on Arrangements has been a labor of love on the part of its members, particularly Doctors Pilgrim, Russell and Kirby, who have attended the meetings and have taken an active part in the work.

I can assure the members of the Association that we are pleased and gratified at having this meeting in New York, and we hope that under President Wagner's able administration it will be one of the most successful meetings the Association has ever had.

THE PRESIDENT.—While the iron is hot, let us strike; I will ask if some one will offer a motion tendering a vote of thanks to Mr. McCarty for his able assistance in providing such an acceptable series of entertainments for this meeting.

DR. BRUSH.—Mr. President, in rising to make that motion, I want to preface it with a motion of thanks to the Committee of Arrangements for the efforts they have put forth to make this a specially interesting meeting. I think all of us have carried away on previous occasions pocket knives, bedside lamps and other souvenirs given us by Mr. McCarty and we have always enjoyed his genial presence at these meetings. He has always seemed to take as much interest in the meetings as if he were a member himself, and I think we can do no less than to acknowledge our high appreciation of the work of Mr. McCarty in the aid given by him to the Committee of Arrangements in collecting funds for the entertainment of the Association.

I move that the thanks of the Association be tendered the Committee of Arrangements coupling therewith the name of Mr. Chas. W. McCarty for the excellent work done on this occasion.

The motion was seconded by Dr. Pilgrim and adopted unanimously.

THE PRESIDENT.—I would like to add one or two announcements to those read by Dr. MacDonald. One is in the nature of a communication from the National Committee for Mental Hygiene, 50 Union Square. The Committee extends a cordial invitation to all members of the Association to visit the office of the Committee and gain information there as to the scope and activity of its work. The other is from Dr. B. D. Evans, Superintendent of the New Jersey State Hospital at Morris Plains, who has requested me to announce that he would be glad to see the Association collectively or individually at the Morris Plains State Hospital and assures everyone a cordial welcome.

I wish to remind you to register; not only the members of the Association, but our guests as well. We desire a complete record of all who have attended this meeting.

Last evening, in conformity with our custom and the requirements of the constitution, the Council held its meeting and transacted considerable business. I will call upon the Secretary for the Council's report.

THE SECRETARY.—*Mr. Chairman and Members of the Association:* The following is the report of the Council to the American Medico-Psychological Association:

NEW YORK, May 29, 1917.

The Council met on the evening of May 28, at the Hotel Astor, New York City.

The Council recommends for election to active membership the following named physicians: This list was presented to the Association a year ago and these names are now submitted for final consideration.

Felix M. Adams, M.D., Vinita, Okla.; Charles R. Ball, M.D., St. Paul, Minn.; Edwin P. Bledsoe, M.D., Little Rock, Ark.; Robert Morris Butler, M.D., Jackson, Miss.; Charles McFie Cambell, M.D., Baltimore, Md.; Lionel L. Cazenavette, M.D., New Orleans, La.; Marcel J. De Mahy, M.D., New Orleans, La.; John W. Duke, M.D., Guthrie, Okla.; Edward J. Engberg, M.D., St. Paul, Minn.; Charlotte S. Farrington, M.D., Philadelphia, Pa.; Henry G. Gahagan, M.D., Elgin, Ill.; James Greenwood, M.D., Houston, Tex.; Ernest M. Hammes, M.D., St. Paul, Minn.; Charles B. Hill, M.D., Supply, Okla.; Andrew W. Hoisholt, M.D., Napa, Cal.; Arthur G. Hyde, M.D., Cleveland, Ohio; H. C. Kehoe, M.D., Frankfort, Ky.; Cheston King, M.D., Atlanta, Ga.; William S. Lindsay, M.D.; Topeka, Kans.; S. Metz Miller, M.D., Norristown, Pa.; Angus W. Morrison, M.D.; Minneapolis, Minn.; Joseph A. O'Hara, M.D., New Orleans, La.; F. L. Peddicord, M.D., Lakeland, Ky.; Harriet E. Reeves, M.D., Melrose, Mass.; G. E. Scrutchfield, M.D., Farmington, Mo.; Charles V. Unsworth, M.D., New Orleans, La.; A. F. Young, M.D., Milwaukee, Wis.; Beverly Young, M.D., San Antonio, Texas.

The Council recommends that the following named physicians be named for associate membership:

J. F. Leigh Brown, M.D., Southampton, N. B.; Walter Burrier, M.D., Medfield, Mass.; Carolyn Clark, M.D., Marion, Va.; Helen Taft Cleaves, M.D., Monson, Mass.; Fred Conzelman, M.D., Stockton, Cal.; Thomas Cuddy, M.D., Wellesley, Mass.; Augustus B. Dykman, M.D., Poughkeepsie, N. Y.; B. F. Frazer, M.D., Osawatomie, Kans.; Edward Thomas Gibson, M.D., Middletown, Conn.; Hugh S. Gregory, M.D., Ogdensburg, N. Y.; John F. Hackett, M.D., Mansfield Depot, Conn.; John J. Harrington, M.D., Osawatomie, Kans.; Stephen P. Jewett, M.D., New York, N. Y.; Wm. A. MacIntyre, M.D., North Grafton, Mass.; Fred L. McDaniel, M.D., Osawatomie, Kans.; George E. McPherson, M.D., Medfield, Mass.; P. B. Means, M.D., Trenton, N. J.; Lester F. Norris, M.D., Bangor, Me.; Walter Joseph Otis, M.D., Waverley, Mass.; Arthur E. Pattrell, M.D., North Grafton, Mass.; Cyrus E. Pringle, M.D., Buffalo, N. Y.; Hamilton Rinde, M.D., Middletown, Conn.; Leigh F. Robinson, M.D., Raleigh, N. C.; Margaret Smythe, M.D., Stockton, Cal.; Wm. S. Walsh, M.D., West Pownal, Me.

The Council has received the following applications for active membership:

G. E. Charlton, M.D., Norfolk, Neb.; Harvey Clare, M.D., Toronto, Ont.; Albert H. Dollear, M.D., Jacksonville, Ill.; Winfield S. Farmer, M.D., Nashville, Tenn.; Wm. S. Fast, M.D., Ingleside, Neb.; C. C. Kirk, M.D., Little Rock, Ark.; Wm. T. Kradwell, M.D., Wauwatosa, Wis.; F. G. La Rue, M.D., Hopkinsville, Ky.; Ralph Reed, M.D., Cincinnati, Ohio; Arthur H. Ring, M.D., Arlington Heights, Mass.; Del Parde W. Roberts, M.D., Milwaukee, Wis.; Rock Sleyster, M.D., Waupun, Wis.; Wm. J. Steward, M.D., Pennhurst, Pa.; Fulton S. Vrooman, M.D., Coburg, Ont.; Samuel B. Woodward, M.D., Worcester, Mass.; Lesser Kauffman, M.D., Buffalo, N. Y.; Beverley R. Tucker, M.D., Richmond, Va.; W. Reid Putney, M.D., Amelia, Va.; A. R. T. Wylie, M.D., Grafton, N. Dak.; Arthur P. Noyes, M.D.,

Boston, Mass.; Wm. Healy, M. D., Boston, Mass.; J. Allison Hodges, M. D., Richmond, Va.

In accordance with the constitution final consideration of these will be deferred until next year.

The Council recommends the transfer of the following named associate members to the active class:

Paul J. Alspaugh, M. D., Massillon, Ohio; Earl D. Bond, M. D., Philadelphia, Pa.; Edgar L. Braunlin, M. D., Dayton, Ohio; George F. Brewster, M. D., New York, N. Y.; H. M. Brundage, M. D., Columbus, Ohio; Ross McC. Chapman, M. D., Washington, D. C.; E. H. Cohoon, M. D., Boston, Mass.; Arrah B. Evarts, M. D., Washington, D. C.; John B. McDonald, M. D., Hathorne, Mass.; A. C. Matthews, M. D., Napa, Cal.; H. C. Podall, M. D., Norristown, Pa.; Charles F. Read, M. D., Watertown, Ill.; Ralph S. Reed, M. D., Central Islip, N. Y.; Arthur H. Ruggles, M. D., Providence, R. I.; Wm. B. Terhune, M. D., Jackson, La.; Tom B. Throckmorton, M. D., Des Moines, Ia.; Adaline Westcott, M. D., Newburgh, N. Y.; Esther S. B. Woodward, M. D., White Plains, N. Y.

The Council reports the following deaths during the year:

Dr. R. W. Bruce Smith, Dr. Charles F. Gilliam, Dr. R. H. Parsons, Dr. Victor A. Bles, Dr. Charles H. Hughes, Dr. C. Von A. Schneider, Dr. Wm. Mabon, Dr. Elliot Gorton, Dr. M. J. White, Dr. G. H. Moody.

The Council recommends to the Association that the sum of \$2500 be set aside from the surplus funds in the hands of the Treasurer of the Association to be applied upon the deficit in the publication of the *Institutional Care of the Insane*. The Council also recommends that the managing editor of the *AMERICAN JOURNAL OF INSANITY*, after conference with the Secretary of the Johns Hopkins Press, transfer the sum of \$500, more or less, to be applied to meeting the deficit incurred in the printing of the *Institutional Care of the Insane* in the United States and Canada.

The Council reports that it has appointed a committee to dispose of the remaining volumes of the above work with power to fix the price to be charged therefor; the proceeds of the sale of such volumes to be applied upon the cancellation of the above two advances.

THE PRESIDENT.—I might add a word in reference to the work *The Institutional Care of the Insane* in the United States and Canada and that as matters now stand there is a shortage in the expense account of approximately \$3000 for which Dr. Henry M. Hurd is assuming responsibility, and the Council believes that as the Association directed this work and assumed sponsorship for it the Association should now, at once, relieve Dr. Hurd from all embarrassment and to do that we have funds amounting to about \$2500 in the hands of the Treasurer which we can devote to that purpose. Furthermore, Dr. Brush states that he can contribute from the *AMERICAN JOURNAL OF INSANITY* about \$500 additional, which might be sufficient to wipe out the debt. Then we shall have 600 sets of the history that will belong to the Association, and a committee has been appointed to undertake the disposition of as many of these sets as possible. The Association will be asked, in place of an assessment, to voluntarily increase subscriptions at the institutions where the members are located or to buy

them personally or in any way they like to secure the sale of a considerable part of the volumes we still have on hand. It is an exceedingly valuable history and every institution and every library should have it; an active campaign will undoubtedly result in the sale of the volumes now on hand.

DR. BRUSH.—*Mr. President:* I would like to make a suggestion as to the deficiency resulting from the publication of the work of which Dr. Hurd is the editor. I know about the shortage only by rumor. Just before I left Baltimore I received a letter from Dr. Hurd in which he said he had sent his report as editor of the volumes to some member of the Editorial Committee, perhaps to Dr. Burgess; and it seemed to me that perhaps it would be wise to defer any positive action on this matter until we learn whether Dr. Hurd's letter is here, what the status is and also as to any advice he has included in his report.

THE PRESIDENT.—Then that part of the report referring to the transfer of the funds will be withdrawn by the Secretary for the present until we ascertain what Dr. Hurd's report contains and this will be submitted at a later session. The other matters are before the Association for such disposal as it desires to make. A motion to approve the action of the Council will be in order.

DR. ASHLEY.—*Mr. President,* I move that the action of the Council taken last night be approved by the Association.

The motion was seconded and adopted unanimously.

DR. MACDONALD.—*Mr. President,* may I urge on behalf of the Committee on Arrangements that all members present with their guests will register as soon as possible concerning the boat trip; and the banquet department of this hotel would be very glad to know the number who will probably have to be served with light refreshments on the evening of the President's reception.

THE PRESIDENT.—The Treasurer will now make his report.

The following is a statement of membership of the American Medico-Psychological Association to date:

HONORARY MEMBERS.	
Present number	18
LIFE MEMBERS.	
Present number	27
ACTIVE MEMBERS.	
Former number	465
Associate to Active	8
Admitted	19
Active to life	9
Resigned	2
Dropped	11
Died	8
Present number	462

ASSOCIATE MEMBERS.

Former number	323
Admitted	40
Associate to Active	8
Resigned	6
Dropped	8
Died	3
Present number	338
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Total membership May 29, 1917.....	845

REPORT OF TREASURER, 1916-1917.

DEBITS.

Balance brought forward	\$3,561.07
Received for dues:	
Active members	2,300.00
Associate members	643.00
Advance dues	22.00
Interest on deposits:	
First National Bank, Massillon	44.38
Mutual Building & Investment Co., Cleveland, Ohio.....	152.80
Miscellaneous:	
Sale of gummed lists	10.50
Sale of copies of Transactions	2.00
Sale of old paper	1.00
Total	\$6,736.75

1916

CREDITS

April 10	Perry & Buckley Co., printing ballots	\$17.25
10	T. E. McGarr, stenographic services	50.00
10	H. C. Eyman, expense at New Orleans meeting	13.41
10	Arthur J. Herring, expense for exhibit	87.40
13	E. A. Rigdon, stamps .....	.50
13	Wm. A. White, postage	4.48
17	W. L. Russell, envelopes	1.82
20	E. A. Rigdon, stamps .....	.50
20	The School & Office Supply Co., copying letters.....	1.35
May 12	Protested check, F. J. Hammond	2.00
15	E. A. Rigdon, stamps	1.50
29	Lord Baltimore Press	1,137.93
June 1	Ohio Printing & Publishing Co., letter heads.....	4.80
1	T. E. McGarr, stenographic services	125.00
2	E. A. Rigdon, express charges .....	.34
27	E. A. Rigdon, stamps .....	.50

Sept.	5	Ohio Printing & Publishing Co., printing.....	10.00
	5	H. C. Eyman, expenses to New York	25.00
	16	Chas. Ream, express charges	1.60
	16	Johns Hopkins Press, reprints and transactions.....	21.50
	16	E. A. Rigdon, stamps .....	.50
Oct.	13	E. A. Rigdon, stamps	10.00
	17	Ohio Printing & Publishing Co., circular letters.....	3.75
	23	Ohio Printing & Publishing Co., envelopes	22.85
	23	E. A. Rigdon, stamps .....	.50
Nov.	14	E. A. Rigdon, stamps .....	.50
	24	H. B. Sibila, p. m. stamps	4.35
	27	E. A. Rigdon, stamps .....	.50
Dec.	15	E. A. Rigdon, stamps	1.00
	21	Ohio Printing & Publishing Co., letters heads and printing	33.15

1917		CREDITS.	
Jan.	16	E. A. Rigdon, stamps .....	.50
	18	Beulah Harpold, stenographic services	100.00
Feb.	19	E. A. Rigdon, stamps	1.00
Mar.	28	Ohio Printing & Publishing Co., printing.....	38.60
April	2	H. B. Sibila, stamps	20.40
	16	Dr. R. H. Hutchings, expense	58.45
	23	H. C. Eyman, expenses to Buffalo	21.00
May	5	E. A. Rigdon, stamps .....	.50
	8	H. B. Sibila, p. m. stamps	10.00
	11	H. B. Sibila, p. m. stamps	7.00
	17	Henry M. Hurd, history account	93.50
	17	E. A. Rigdon, clerical services	35.00
	18	Ohio Printing & Publishing Co., programs, envelopes and inserts	105.75
	19	The Park Press, printing ballots	3.00
	21	A. P. Herring, expense attending meeting of Committee on Diversional Occupation	17.94
	21	Wm. Rush Dunton, expense attending meeting of Com- mittee on Diversional Occupation	23.88
	21	Ohio Printing & Publishing Co., envelopes	23.35

Total expenditures\$2,143.65

Balance on hand as follows:

First National Bank, Massillon, Ohio..... 2,440.10
Mutual Bldg. & Investment Co., Cleveland, Ohio..... 2,152.80

Total\$6,736.75

Respectfully submitted,

HENRY C. EYMAN, *Treasurer.*

THE PRESIDENT.—The report of the Treasurer will be referred to the auditors and by them will be submitted to the Association. We will now call for a report of the editors of the JOURNAL OF INSANITY.

DR. BRUSH.—Mr. President, the editors of the JOURNAL OF INSANITY have nothing remarkably new to present. Those of you who subscribe to the JOURNAL have the pleasure of reading it and those who do not subscribe don't know what they are losing; they have missed something out of their lives and if they want to live long and happily they must send on their subscriptions. The JOURNAL has been met with the increased cost of living—with the higher prices for paper, ink and composition, so that payments for the JOURNAL have during the past year been larger than the previous years.

We feel, at least I feel, I have not had an opportunity of conferring with my associates on the board, that quite possibly if the necessity arises we can contribute from the funds of the JOURNAL a sum approximating \$500 to help wipe out the indebtedness on the Institutional Care of the Insane in the United States and Canada, three volumes of which have been published and the fourth volume of which is now in press.

I would like to say a word or two to the contributors of the JOURNAL, and particularly to you gentlemen who are down for papers on the program: Please send your manuscript to the JOURNAL in the form in which you want it printed. I do not know that you all realize that when a manuscript is put in type and sent to the author for proof corrections and he re-writes several paragraphs and strikes out others and puts in new sentences and clauses that he is causing the JOURNAL an expenditure amounting some times to more than the original cost of setting up his article. We furnish the JOURNAL to members of the Association at a minimum price and reasonable illustrations are supplied and we are always glad to make such corrections in the proof as are due to printers' errors, but we do believe that when a gentleman sends his manuscript to us he ought to send it in the shape in which he wishes it printed. After he has received his proof we feel that if he wants to rewrite his article he should stand the cost incurred in resetting the type. By observing these suggestions contributors can help us in meeting the high cost of paper and other supplies. I would ask that these vouchers be referred to the auditing committee.

THE PRESIDENT.—The financial report of the JOURNAL will be referred to the auditing committee for examination.

At this time it is the duty of the President to appoint the nominating committee. I shall name as the committee charged with the important duty of nominating officers for the ensuing year, Dr. Carlos F. MacDonald, of New York; Dr. H. W. Mitchell, of Pennsylvania and Dr. Edward N. Brush, of Maryland.

At the meeting in New Orleans last year, some matters appeared in daily newspapers erroneously and a resolution was adopted that a committee on publicity should be appointed to look after the publication of such news concerning the Association's activities as might be thought

interesting and desirable. I will, therefore, appoint as such committee, Drs. Chas. W. Pilgrim, William L. Russell and Isham G. Harris. Another committee that I will name at this time is the committee on awards for excellence of the exhibits in the adjoining room and we shall go outside of the Association for some of its members. I will name as the members of this committee Mr. George A. Hastings, Executive Secretary of the State Charities Aid Association; Dr. Frankwood Williams; Dr. Jesse Coggin; Dr. W. W. Richardson and Miss Susan C. Johnson.

Our program calls for a recess at this time for registration of members and visitors. I think, however, it would be well on account of the length of the program to omit the recess. You have all been requested to register, both our members and our guests, and I hope you will improve the opportunity very soon by seeing that your names are duly recorded. We desire a full list of all who attend, not only our members but our visitors as well. Another very important matter is to inform the registration committee whether you expect to attend the function on Wednesday evening or not. This is an important thing for the hotel to know and we hope that every one who can do so will attend. Also, we would be glad to have every one who intends to take the boat trip Wednesday afternoon indicate his desire so that arrangements to accommodate everybody may be made.

We now have a duty to perform in memory of our deceased members. During the year a number of our associates have gone to that "bourne whence no traveler returns," and friends have kindly drafted tributes to their memory.

I will ask Dr. Eyman, the Secretary, to read the names of those who have departed this life during the year and the names of those who have prepared memorial notices and ask the members and friends present to stand while these are being read.

The Secretary, Dr. Eyman, then read the following list of memorial notices:

Richard H. Parsons, M.D., by Dr. B. D. Evans; Carl von Arx Schneider, M.D., by Dr. C. A. Potter; Charles Frederick Gilliam, by Dr. Guy H. Williams; R. W. Bruce Smith, M.D., by Dr. C. K. Clarke; William Mabon, M.D., by Dr. Charles W. Pilgrim; Eliot Gorton, M.D., by Dr. Thomas P. Prout; Charles Hamilton Hughes, M.D., by Dr. C. R. Woodson; Henry P. Frost, M.D., by Dr. ———; George H. Schwinn, M.D., by Dr. William A. White; Victor A. Bles, M.D., by Dr. Ralph H. Hinton.

THE PRESIDENT.—The time has arrived for the President to inflict upon the Association the presidential address.

The President then read the address which was received with continuous applause.

DR. BRUSH.—Mr. Secretary, as the vice-president is not in the chair, I must ask you to put a motion which I am sure everyone in the room will rise to support; that is, that the thanks of the Association be extended to

Dr. Wagner on the occasion of the inspiring address that we have heard him deliver to-day.

Secretary Eyman put the motion which, after being seconded, was adopted unanimously by a rising vote.

The President thanked the Association for its kind action and a recess was taken until 2.30 p. m.

The following members registered and were in attendance during the whole or a part of the meeting :

Abbot, E. Stanley, M. D., Assistant Physician McLean Hospital, Waverley, Mass.

Allen, H. D., M. D., Superintendent Allen's Invalid Home, Milledgeville, Georgia.

Allen, J. Berton, M. D., Assistant Physician Central Islip State Hospital, Central Islip, N. Y.

Amsden, George S., M. D., Assistant Physician Bloomingdale Hospital, White Plains, N. Y.

Anderson, Albert, M. D., Superintendent State Hospital, Raleigh, N. C.

Anderson, Paul V., M. D., Resident Physician, Westbrook Sanatorium, Richmond, Va.

Anglin, James V., M. D., Medical Superintendent The Provincial Hospital, St. John, N. B.

Ashley, M. C., M. D., Superintendent Middletown State Hospital, Middletown, N. Y.

Baker, Amos T., M. D., Examiner Police Department, New York City, Elmhurst, N. Y.

Ball, Jau Don, M. D., Alameda County Hospital, Oakland, Cal.

Bancroft, Chas. P., M. D., Superintendent New Hampshire State Hospital, Concord, N. H.

Barlow, Chas. A., M. D., Superintendent Spencer State Hospital, Spencer, W. Va.

Barnhardt, W. N., M. D., Assistant Physician Central Islip State Hospital, Central Islip, N. Y.

Barrett, Albert M., M. D., Medical Director State Psychopathic Hospital, University of Michigan, Ann Arbor, Mich.

Barry, R. Grant, M. D., Assistant Physician, New Jersey State Hospital, Trenton, N. J.

Beling, Christopher C., M. D., Visiting Alienist Psychopathic Department, Newark City Hospital, Newark, N. J.

Bentley, Inez A., M. D., Woman Physician Kings Park State Hospital, Kings Park, N. Y.

Beutler, W. F., M. D., Superintendent Milwaukee Asylum for the Chronic Insane, Wauwatosa, Wis.

Blaisdell, R. E., M. D., Senior Assistant Physician Kings Park State Hospital, Kings Park, N. Y.

Blumer, G. Alder, M. D., Medical Superintendent Butler Hospital, Providence, R. I.

Bond, Earl D., M. D., Senior Assistant Physician, Pennsylvania Hospital, Philadelphia, Pa.

Bond, George F. M., M. D., Physician in Charge Dr. Bond's House, Yonkers, N. Y.

Bradley, Isabel A., M. D., Assistant Physician, Columbus State Hospital, Columbus, Ohio.

Brewster, Geo. F., M. D., Alienist Children's Court, New York City.

Briggs, Lloyd Vernon, M. D., Secretary Massachusetts Committee for the Treatment and Care of Soldiers Suffering from Mental and Nervous Diseases, Boston, Mass.

Brodsky, Emanuel S., M. D., Assistant Medical Superintendent, Westport Sanatorium, Westport, Conn.

Brown, G. W., M. D., Superintendent Eastern State Hospital, Williamsburg, Pa.

Brush, Edw. N., M. D., Physician-in-Chief and Superintendent, Sheppard and Enoch Pratt Hospital, Towson, Baltimore Co., Md.

Brown, Louis R., M. D., Assistant Physician Connecticut Hospital for the Insane, Middletown, Conn.

Buchanan, J. M., M. D., Superintendent East Mississippi Insane Hospital, Meridian, Miss.

Buckley, Albert C., M. D., Clinical Director Friends' Hospital, Frankford, Philadelphia, Pa.

Buckley, Jas. M., D. D., LL. D. (Honorary Member), Morristown, N. J.

Burdick, Chas. M., M. D., Senior Assistant Physician, Central Islip State Hospital, Central Islip, N. Y.

Burgess, T. J. W., M. D., Medical Superintendent, Protestant Hospital for Insane, Montreal, Que.

Burnett, S. Grover, M. D., Superintendent Burnett Sanitarium, Kansas City, Mo.

Burr, C. B., M. D., Medical Director "Oak Grove," Flint, Mich.

Burr, Chas. W., M. D., University of Pennsylvania, Philadelphia, Pa.

Capron, Arthur J., M. D., President and Physician in Charge, Glenmary Sanitarium, Owego, N. Y.

Carlisle, Chester Lee, M. D., Senior Assistant Physician, Kings Park State Hospital, Kings Park, N. Y.

Carmichael, F. A., M. D., Superintendent Osawatomie State Hospital, Osawatomie, Kans.

Chapman, Ross McC., M. D., First Assistant Physician, St Elizabeth's Hospital, Washington, D. C.

Cheney, Clarence O., M. D., Assistant Physician Manhattan State Hospital, Ward's Island, N. Y.

Clark, Chas. H., M. D., Superintendent, Lima State Hospital, Lima, Ohio.

Clark, J. Clement, M. D., Superintendent Springfield State Hospital, Sykesville, Md.

Coffin, Harriet F., M. D., Assistant Physician Kings Park State Hospital, Kings Park, N. Y.

Coggins, Jesse C., M.D., Medical Director, The Laurel Sanatorium, Laurel, Md.

Cohon, E. H., M.D., Superintendent Medfield State Hospital, Harding, Mass.

Colburn, Arthur B., M.D., Assistant Physician Connecticut Hospital for the Insane, Middletown, Conn.

Cook, Robert G., M.D., Resident Physician Brigham Hall, Canandaigua, N. Y.

Copp, Owen, M.D., Physician and Superintendent, Pennsylvania Hospital for the Insane, Philadelphia, Pa.

Cornell, William Burgess, M.D., Medical Director New York City Children's Hospital and School, Randall's Island, New York City.

Cotton, Henry A., M.D., Medical Director New Jersey State Hospital, Trenton, N. J.

Craig, Anna, M.D., Woman Physician Kings Park State Hospital, Kings Park, N. Y.

Curry, Marcus A., M.D., Assistant Physician New Jersey State Hospital, Greystone Park, N. J.

Davies, Geo. W., M.D., Assistant Physician Essex County Hospital, Cedar Grove, N. J.

Devlin, F. E., M.D., Assistant Medical Superintendent, Hospital St. Jean de Dieu, Gamelin, Que.

Dewey, Richard, M.D., Physician-in-Charge, Milwaukee Sanitarium, Wauwatosa, Wis.

Dold, Wm. Elliott, M.D., Medical Superintendent, River Crest Sanitarium, Astoria, L. I.

Donohue, Geo., M.D., Superintendent Cherokee State Hospital, Cherokee, Iowa.

Drewry, Wm. F., M.D., Central State Hospital, Petersburg, Va.

Durgin, Delmer D., M.D., Assistant Physician Central Islip State Hospital, Central Islip, N. Y.

Eastman, Frederick C., M.D., Brooklyn, N. Y.

Elliott, Robert M., M.D., Superintendent Willard State Hospital, Willard, N. Y.

Emerick, E. J., M.D., Superintendent Institution for Feeble-Minded, Columbus, Ohio.

English, W. M., M.D., Medical Superintendent, Hospital for Insane, Hamilton, Ont.

Evans, Britton D., M.D., Medical Director, New Jersey State Hospital, Morris Plains, Greystone Park, N. J.

Eyman, Henry C., M.D., Superintendent Massillon State Hospital, Massillon, Ohio.

Faison, W. W., M.D., Superintendent State Hospital, Goldsboro, N. C.

Finlayson, Alan D., M.D., Senior Assistant Physician, Warren State Hospital, Warren, Pa.

Fisher, E. Moor, M.D., Senior Assistant Physician, New Jersey State Hospital, Morris Plains, Greystone Park, N. J.

Flood, Everett, M. D., Superintendent Monson State Hospital, Palmer, Mass.

Folsom, Ralph P., M. D., Senior Physician Manhattan State Hospital, Ward's Island, New York City.

Forster, J. M., M. D., Medical Superintendent, Hospital for Insane, Toronto, Ont.

Fuller, Daniel H., M. D., Senior Assistant Physician, Pennsylvania Hospital for the Insane, Philadelphia, Pa.

Fuller, Solomon Carter, Md., Pathologist Westborough State Hospital, Westborough, Mass.

Garvin, Wm. C., M. D., First Assistant Physician, Kings Park State Hospital, Kings Park, N. Y.

Givens, Amos J., M. D., Proprietor Dr. Givens' Sanitarium, Stamford, Conn.

Glascok, Alfred, M. D., Senior Assistant Physician St. Elizabeth's Hospital, Washington, D. C.

Gosline, Harold I., M. D., Pathologist New Jersey State Hospital, Trenton, N. J.

Granger, William D., M. D., Superintendent Vernon House, Bronxville, N. Y.

Green, Edw. M., M. D., Clinical Director Georgia State Sanitarium, Milledgeville, Ga.

Green, Edw. C., M. D., First Assistant Physician Northampton State Hospital, Northampton, Mass.

Griffin, David W., M. D., Superintendent Central State Hospital, Norman, Okla.

Grover, Milton W., M. D., Assistant Physician Kings Park State Hospital, Kings Park, N. Y.

Hall, G. Stanley, Ph. D., LL. D., President Clark University, Worcester, Mass. (Honorary.)

Hamilton, S. W., M. D., Director Psychopathic Laboratory, Police Department, New York City.

Hancker, William H., M. D., Medical Superintendent, Delaware State Hospital, Farnhurst, Del.

Harrington, Arthur H., M. D., Superintendent State Hospital for Mental Diseases, Howard, R. I.

Harris, Isham G., M. D., Superintendent Brooklyn State Hospital, Brooklyn, N. Y.

Haskell, Robert H., M. D., Medical Superintendent, Ionia State Hospital, Ionia, Mich.

Hasking, Arthur P., M. D., Examiner of Indigent Insane, Hudson County, N. J., Jersey City, N. J.

Hassall, Jas. C., Clinical Director, St. Elizabeth's Hospital, Washington, D. C.

Haviland, C. Floyd, M. D., Superintendent Connecticut Hospital for the Insane, Middletown, Conn.

Hawke, W. W., M. D., Eurie Sanitarium, Clifton Heights, Pa.

Hedin, Carl J., M. D., Superintendent Maine School for Feeble-Minded, West Pownal, Me.

Henderson, Estelle H., M. D., Superintendent Southwestern State Hospital, Marion, Va.

Henschel, Louis K., M. D., Senior Assistant Physician, New Jersey State Hospital, Morris Plains, N. J.

Herring, Arthur P., M. D., Secretary Maryland Lunacy Commission, Baltimore, Md.

Heyman, Marcus B., M. D., Medical Inspector New York State Hospital Commission, Ward's Island, New York City.

Hill, Chas. G., M. D., Physician-in-Chief, Mt. Hope Retreat, Baltimore, Md.

Hill, Gershom H., M. D., Superintendent "The Retreat," Des Moines, Iowa.

Hill, Samuel S., M. D., Superintendent and Chief Physician State Asylum, Wernersville, Pa.

Hinckley, Livingston S., M. D. (Formerly Medical Superintendent Essex County Hospital, Newark, N. J.)

Hitchcock, Chas. W., M. D., Attending Neurologist, Harper Hospital, Detroit, Mich.

Hobbs, Alfred T., M. D., Superintendent Homewood Sanitarium, Guelph, Ont.

Hoffman, Harry F., M. D., Assistant Superintendent, State Hospital, Allentown, Pa.

Holley, Erving, M. D., Senior Assistant Physician, Brooklyn State Hospital, Brooklyn, N. Y.

Houston, John A., M. D., Superintendent Northampton State Hospital, Northampton, Mass.

Howard, Eugene H., M. D., Medical Superintendent, Rochester State Hospital, Rochester, N. Y.

Hurd, Arthur W., M. D., Medical Superintendent Buffalo State Hospital, Buffalo, N. Y.

Hutchings, Richard H., M. D., Medical Superintendent St. Lawrence State Hospital, Ogdensburg, N. Y.

Hutchinson, Henry A., M. D., Physician and Superintendent, Dixmont Hospital for the Insane, Dixmont, Pa.

Isham, Mary Keyt, M. D., 135 W. 79th St., New York.

Jelliffe, Smith Ely, M. D., Consulting Neurologist Manhattan State Hospital, New York.

Jones, L. M., M. D., Superintendent Georgia State Sanitarium, Milledgeville, Ga.

Jones, Wm. A., M. D., Visiting Neurologist, Minneapolis City Hospital, Southside Sanitarium, Minneapolis, Minn.

Karpas, Morris J., M. D., Medical Examiner in Children's Court, New York Neurological Institute and Children's Court, New York.

Keating, Frank W., M. D., Medical Superintendent Rosewood State Training School, Owings Mills, Md.

Kelly, Wm. E., M. D., Assistant Physician Middletown State Hospital, Middletown, N. Y.

Kieb, Raymond F., M. D., Medical Superintendent Matteawan State Hospital, Matteawan, N. Y.

Kindred, John Joseph, M. D., Proprietor and Consultant, Rivercrest Sanitarium, Astoria, N. Y.

King, Geo. W., M. D., Medical Director Hudson County Hospital, Secaucus, N. J.

Kirby, Geo. H., M. D., Director Clinical Psychiatry, Manhattan State Hospital, Ward's Island, New York City.

Kline, Geo., M. D., Massachusetts Committee on Mental Diseases, Boston, Mass.

Klopp, Henry I., M. D., Superintendent and Physician-in-Chief, Homeopathic State Hospital, Allentown, Pa.

Knapp, John Rudolph, M. D., Assistant Physician Manhattan State Hospital, Ward's Island, New York City.

Lamb, Robert B., M. D., Physician-in-Charge Craig House, Beacon-on-Hudson, N. Y.

LaMoure, Chas. T., M. D., Superintendent Connecticut Training School for Feeble-Minded, Lakeville, Conn.

LaMoure, H. A., M. D., Superintendent Colorado State Hospital, Pueblo, Cal.

Landers, Geo. B., M. D., Superintendent Memorial Hospital, Morristown, N. J.

Lang, Walter E., M. D., Senior Assistant Physician, State Hospital, Allentown, Pa.

Laughlin, Chas. E., M. D., Medical Superintendent Southern Hospital, Evansville, Ind.

Leahy, Sylvester R., M. D., Resident Alienist, Kings County Hospital, Brooklyn.

Leak, Roy L., M. D., Physician-in-Charge Syracuse Psychopathic Hospital, Syracuse, N. Y.

Lewis, J. M., M. D. (Formerly Superintendent Cleveland State Hospital, Cleveland, Ohio.)

Lind, John E., M. D., Senior Assistant Physician, St. Elizabeth's Hospital, Washington, D. C.

Locke, Hersey G., M. D., Associate Professor Psychiatry, Syracuse College of Medicine, Genesee Sanitarium, N. Y.

Long, T. L., M. D., First Assistant Physician, Northern Hospital, Winnebago, Wis.

McC Campbell, John M., M. D., Superintendent State Hospital at Morgantown, Morgantown, N. C.

McDonald, Wm., Jr., M. D., 188 Blackstone Boulevard, Providence, R. I.

MacDonald, Carlos F., M. D., Physician-in-Charge Dr. MacDonald's House, 15 E. 48th St., New York City.

Macdonald, John B., M. D., Superintendent Danvers State Hospital, Haverthorne, Mass.

McGaffin, C. G., M. D., Assistant Physician Kings Park State Hospital, Kings Park, N. Y.

Markham, C. L., M. D., Superintendent Brunswick Home, Amityville, N. Y.

May, James V., M. D., Superintendent Grafton State Hospital, North Grafton and Worcester, Mass.

Mellus, Edward, M. D., Superintendent Dr. Mellus' Private Hospital, Newton, Mass.

Meyer, Adolf, M. D., Psychiatrist-in-Chief, Johns Hopkins Hospital, Henry Phipps' Psychiatric Clinic, Johns Hopkins Hospital, Baltimore, Md.

Miller, Henry W., M. D., Director "Mountainbrook," Brewster, N. Y.

Mitchell, H. W., M. D., Superintendent State Hospital for Insane, Warren, Pa.

Mitchell, J. C., M. D., Medical Superintendent Hospital for Insane, Brockville, Ont.

Moore, Arthur S., M. D., Senior Assistant Physician Middletown State Hospital, Middletown, N. Y.

Moore, J. W., M. D., First Assistant Physician, Matteawan State Hospital, Beacon, N. Y.

Mosher, J. M., M. D., Attending Specialist for Mental Diseases, Albany Hospital, Albany, N. Y.

Mullan, Eugene H., M. D., Public Health Service, Ellis Island, New York City.

Munson, J. F., M. D., Resident Pathologist Craig Colony for Epileptics, Sonyea (Mount Morris), N. Y.

Murdock, J. M., M. D., Superintendent State Institution for Feeble-Minded, Polk, Pa.

Newcomb, Philip B., M. D., Pathologist State Hospital, Bangor, Me.

North, Charles H., M. D., Medical Superintendent Dannemora State Hospital, Dannemora, N. Y.

O'Hanlon, George, M. D., General Medical Superintendent Bellevue and Allied Hospitals, New York.

O'Harrow, Marian, M. D., Assistant Physician Friends Hospital, Frankford, Philadelphia, Pa.

Orth, H. L., M. D., Superintendent and Physician Pennsylvania State Lunatic Hospital, Harrisburg, Pa.

Ostrander, Herman, M. D., Medical Superintendent Kalamazoo State Hospital, Kalamazoo, Mich.

Packer, Flavius, M. D., Physician-in-Charge, West Hill, Riverdale, New York City.

Page, Hartstein W., M. D., Formerly Superintendent Hospital Cottages for Children, Baldwinsville, Mass.

Palmer, H. L., M. D., Superintendent Utica State Hospital, Utica, N. Y.

Parker, Charles S., M. D., Assistant Physician Kings Park State Hospital, Kings Park, N. Y.

Patterson, C. J., M. D., Physician-in-Charge, Marshall Sanitarium, Troy, N. Y.

Payne, Guy, M. D., Medical Superintendent Essex County Hospital, Cedar Grove, N. J.

Peterson, Jessie M., M. D., Chief Resident Physician Department for Women, State Hospital, Norristown, Pa.

Petery, Arthur K., M. D., First Assistant Physician, State Hospital for the Insane, Norristown, Pa.

Pilgrim, Charles W., M. D., Chairman State Hospital Commission, State of New York, Poughkeepsie, N. Y.

Potter, Clarence A., M. D., Superintendent Gowanda State Homeopathic Hospital, Collins, N. Y.

Priddy, A. S., M. D., Superintendent the State Epileptic Colony, Madison Heights, Va.

Prout, Thomas P., M. D., Superintendent Fair Oaks Sanitarium, Summit, N. J.

Purdum, H. D., M. D., Clinical Director, Springfield State Hospital, Sykesville, Md.

Putnam, Emma, M. D., Poughkeepsie, N. Y.

Raynor, Mortimer W., M. D., Chief Physician-Psychiatrist, Division of Reception and Classification, Department of Corrections, Penitentiary, Blackwell's Island, New York City.

Richardson, Wm. W., M. D., Medical Director The Mercer Sanitarium, Mercer, Pa.

Ripley, Horace G., M. D., Assistant Superintendent Taunton State Hospital, Taunton, Mass.

Robertson, Frank W., M. D., Attending Physician, Department Nervous and Mental Diseases, Roosevelt Hospital, New York City.

Robinson, W. J., M. D., Medical Superintendent, Hospital for Insane, London, Ontario.

Rosanoff, A. J., M. D., First Assistant Physician Kings Park State Hospital, Kings Park, N. Y.

Ross, Donald L., M. D., Superintendent Connecticut Colony for Epileptics, Mansfield Depot, Conn.

Rowe, John T. W., M. D., First Assistant Physician, Manhattan State Hospital, Ward's Island, N. Y.

Ruggles, Arthur H., M. D., Assistant Physician, Butler Hospital, Providence, R. I.

Russell, William L., M. D., Medical Superintendent Bloomingdale Hospital, White Plains, N. Y.

Ryon, Dr. Walter G., M. D., Superintendent Hudson River State Hospital, Poughkeepsie, N. Y.

Sandy, William C., M. D., Assistant Superintendent Connecticut Hospital for Insane, Middletown, Conn.

Scribner, E. V., M. D., Medical Superintendent Worcester State Hospital, Worcester, Mass.

Searcy, J. D., M. D., Superintendent Alabama Insane Hospitals, Tuscaloosa, Ala.

Searl, Wm. A., M. D., Medical Director Fair Oaks Villa, Cuyahoga Falls, Ohio.

Shanahan, William T., M. D., Superintendent Craig Colony for Epileptics, Sonyea, N. Y.

Sharp, George A., M. D., Assistant Physician Matteawan State Hospital, Beacon, N. Y.

Shaw, Arthur L., M. D., Assistant Physician Craig Colony for Epileptics, Sonyea, N. Y.

Sheehan, Robert F., M. D., Navy Department, U. S. Naval Hospital, New York.

Singer, H. Douglas, M. D., Director State Psychopathic Institute, Kankakee, Ill.

Smith, G. A., M. D., Superintendent and Medical Director, Central Islip State Hospital, Central Islip, N. Y.

Smith, S. E., M. D., Medical Superintendent Eastern Indiana Hospital, Richmond, Ind.

Smith, Stephen, M. D. (Honorary), 300 Central Park West, New York.

Snavely, Earl H., M. D., Assistant Physician, Essex County Hospital, Cedar Grove, N. J.

Solomon, Harry C., M. D., Investigator Massachusetts Committee on Mental Diseases, Boston, Mass.

Somerville, William G., M. D., Memphis, Tenn.

Southard, Elmer E., M. D., Director Psychopathic Hospital, Boston, Mass.

Spaulding, Harry O., M. D., Superintendent Westborough State Hospital, Westborough, Mass.

Stack, S. S., M. D., Superintendent Sacred Heart Sanitarium and St. Mary's Hill Sanitarium, Milwaukee, Wis.

Stearns, A. W., M. D., Assistant Physician Psychopathic Hospital, Boston, Mass.

Steckel, Harry A., M. D., Assistant Physician Kings Park State Hospital, Kings Park, N. Y.

Stedman, Henry R., M. D., Superintendent Bournewood Hospital, South Street, Brookline, Mass.

Stick, H. Louis, M. D., Superintendent Hospital Cottages for Children, Baldwinsville, Mass.

Strecker, Edward A., M. D., Assistant Physician Pennsylvania Hospital, Philadelphia, Pa.

Swift, M. B., M. D., Psychopathic Department Boston State Hospital, Boston, Mass.

Terflinger, Frederick W., M. D., Medical Superintendent Northern Hospital for the Insane, Logansport, Ind.

Thom, Douglas A., M. D., Assistant Pathologist Massachusetts Commission on Mental Diseases, Grafton State Hospital, Worcester, Mass.

Thomas, John M., M. D., Superintendent Louisiana Hospital for the Insane, Pineville, La.

Thompson, Charles E., Superintendent Gardner State Colony, Gardner, Mass.

Thompson, Whitefield N., M. D., Superintendent and Physician, Hartford Retreat, Hartford, Conn.

Thorne, Frederic H., M. D., Pathologist New Jersey State Hospital, Greystone, N. J.

Todd, Leona E., M. D., Woman Physician Hudson River State Hospital, Poughkeepsie, N. Y.

Toomey, Joseph H., M. D., Psychiatrist Police Psychopathic Laboratory, New York.

Treadway, Walter L., M. D., U. S. Public Health Service, Ellis Island, New York.

Turner, Reeve, M. D., Metropolitan Hospital, Blackwell's Island, New York.

Tuttle, George T., M. D., Medical Superintendent McLean Hospital, Waverley, Mass.

Toohey, John J., M. D., Physician-in-Charge Providence Retreat, Buffalo, N. Y.

Tyson, Dr. F. C., Superintendent Augusta State Hospital, Augusta, Me.

Van Nuys, W. C., M. D., Superintendent Indiana Village for Epileptics, Newcastle, Ind.

Wade, J. Percy, M. D., Medical Superintendent Spring Grove State Hospital, Catonsville, Md.

Wagner, Charles G., M. D., Superintendent Binghamton State Hospital, Binghamton, N. Y.

Walker, Eloise, M. D., Woman Physician Binghamton State Hospital, Binghamton, N. Y.

Walker, Lewis M., M. D., 100 W. 110th St., New York.

Webster, B. R., M. D., Assistant Physician Matteawan State Hospital, Beacon, N. Y.

Weeks, David F., M. D., Superintendent New Jersey State Village for Epileptics, Skillman, N. J.

Weston, Paul G., M. D., Pathologist State Hospital, Warren, Pa.

White, Wm. A., M. D., Superintendent Saint Elizabeth's Hospital, Washington, D. C.

Whitney, Ray L., M. D., Assistant Physician McLean Hospital, Waverley, Mass.

Wholey, C. C., M. D., West Pennsylvania Hospital, St. Francis Hospital, Pittsburgh, Pa.

Williams, C. F., M. D., Superintendent State Hospital for the Insane, Columbia, S. C.

Williams, Frankwood E., M. D., Associate Medical Director National Committee for Mental Hygiene, 50 Union Square, New York.

Wilsey, Orville J., M. D., Physician-in-Charge Long Island Home, Amityville, N. Y.

Witte, Max E., M. D., Superintendent Payringa State Hospital, Payringa, Iowa.

Woodbury, Frank, M. D., Secretary Commission on Lunacy of Pennsylvania, Philadelphia, Pa.

Woodson, C. R., M. D., Superintendent and Physician-in-Charge C. R. Woodson Sanitarium, St. Joseph, Mo.

Woodman, Robert C., M. D., First Assistant Physician, Middletown State Homeopathic Hospital, Middletown, N. Y.

Woodward, Esther S. B., M. D., Psychiatrist Westchester County Clinic, Children's Division, White Plains, N. Y.

Work, Hubert, M. D., Superintendent Woodcroft Hospital, Pueblo, Col.

Wright, William W., M. D., Senior Assistant Physician Psychiatric Institute, Wards Island, New York.

The following visitors and guests of the Association registered their names with the Secretary.

Adams, Felix M., Superintendent East Oklahoma Hospital for the Insane, Vinita, Okla.

Allen, Mrs. J. Barton, Central Islip, N. Y.

Amsden, Mrs. G. S., White Plains, N. Y.

Armstrong, S. T., M. D., Physician-in-Charge, Kilbourn Club, Katonah, N. Y.

Baker, Benjamin W., Superintendent New Hampshire School for Feeble-Minded, Laconia, N. H.

Baker, Mrs. Benjamin W., Laconia, N. H.

Bancroft, Mrs. Chas. P., Concord, N. H.

Banks, Dr. Winifred D., East Orange, N. J.

Barlow, Mrs. Charles A., Spencer, W. Va.

Becker, W. F., M. D., Goldsmith Bldg., Milwaukee, Wis.

Beers, Clifford W., Secretary National Committee for Mental Hygiene, 50 Union Square, New York.

Beutler, Mrs. W. F., Wauwatosa, Wis.

Blew, Edgar Maule, M. D., Junior Assistant Physician State Hospital, Allentown, Pa.

Bond, J. B., M. D., Superintendent Western Hospital for the Insane, Bolivar, Tennessee.

Brink, Dr. Chas. G., New York City.

Brink, Mrs. C. G., New York City.

Broughton, Miss Liela E., New York City.

Brown, Mrs. D. L. Field W., Village for Epileptics, Skillman, N. J.

Brown, Miss Jessie L., Superintendent of Nurses, Pennsylvania Hospital, Philadelphia, Pa.

Brush, Mrs. Edward N., Towson, Baltimore Co., Md.

Buchanan, Mrs. J. M., Meridian, Miss.

Burgess, Mrs. T. J. W., Montreal, Que.

Burnett, Mrs. S. Grover, Kansas City, Mo.

Butler, Mrs. Thomas, Glen Cove, New York.

Capron, Mrs. Arthur J., Owego, N. Y.

- Cheney, Mrs. Clarence O., Ward's Island, New York.
Clark, Mrs. J. Henry, Newark, N. J.
Coffee, William L., Board of Administration, Milwaukee Co., Wauwatosa, Wis.
Cohon, Mrs. E. H., Harding, Mass.
Conklin, Edwin G., Professor Biology, Princeton University, Princeton, N. J.
Cook, Mrs. Robert G., Brigham Hall, Canandaigua, N. Y.
Copp, Mrs. Owen, Philadelphia, Pa.
Corbett, M. J., Manager Binghamton State Hospital, Binghamton, N. Y.
Corbett, Mrs. M. J., Binghamton, N. Y.
Coyle, Miss Sarah, Village for Epileptics, Skillman, N. J.
Creighton, Mrs. J. B., Montreal, Que.
Davey, Miss May, East Orange, N. J.
Deady, Henderson B., M. D., Assistant Physician Neurological Institute, New York.
Donohoe, Mrs. George, Cherokee, Iowa.
Donett, John Victor, M. D., Physician New Jersey State Hospital, Greystone Park, N. J.
Donett, Mrs. J. V., Greystone Park, N. J.
Duke, John W., Chairman State Commission in Lunacy State of Oklahoma, Superintendent Duke Sanitarium, Guthrie, Okla.
Dunham, Sydney A., M. D., Private Sanitarium, Buffalo, N. Y.
Eastman, F. C., M. D., Brooklyn, N. Y.
Ellis, G. L., M. D., Superintendent Muierdale Sanatorium, Wauwatosa, Wis.
Elwood, Everett S., Secretary New York State Hospital Commission, Albany, N. Y.
Emerick, Mrs. E. J., Columbus, Ohio.
Eyman, Miss Ethel, Matron Massillon State Hospital, Massillon, Ohio.
Farmer, Winfield Scott, M. D., Superintendent Central Hospital for Insane, Nashville, Tenn.
Farrington, Lewis M., Assistant Secretary and Treasurer, New York State Hospital Commission, Albany, N. Y.
Fisher, Mrs. E. Moore, Graystone Park, N. J.
Forster, Mrs. J. M., Toronto, Ont.
Gahagan, H. J., M. D., Superintendent Elgin State Hospital, Elgin, Ill.
Garvin, Mrs. W. C., Kings Park, N. Y.
Gaston, E. P., New York.
Ginane, M. A., Matron S. P. C. C., Brooklyn, N. Y.
Gibbons, Mrs. Amos J., Stamford, Conn.
Guichtel, A. Lawrence, M. D., New York.
Haines, Emily L., Boston, Mass.
Hamilton, Mrs. S. W., New York City.
Hammond, Graeme M., Professor Mental and Nervous Diseases New York Post Graduate and Hospital, New York.

Hastings, George A., Executive Secretary Mental Hygiene Committee, N. Y. State Charities Aid Association, New York.

Haviland, Mrs. Floyd, Middletown, Conn.

Hecox, William H., Manager Binghamton State Hospital, Binghamton, N. Y.

Hebin, Mrs. Carl J., Maine School for Feeble-Minded, West Pownal, Maine.

Healdt, Thomas J., M. D., Clinical Assistant in Psychiatry Psychiatric Institute, Ward's Island, New York.

Healdt, Mrs. Thos. J., Scarsdale, New York.

Herr, Daniel C., Member Board of Trustees Pennsylvania State Lunatic Hospital, Harrisburg, Pa.

Heyen, John P., M. D., Manager Kings Park State Hospital, Northport, N. Y.

Higgins, F. A., State Hospital Commissioner, New York.

Hill, C. B., Superintendent Oklahoma Hospital for Insane, Supply, Okla.

Hinkle, B. M., M. D., 10 Gramercy Park, New York.

Hutchings, Mrs. Richard H., Ogdensburg, N. Y.

Jones, Miss E. M., East Aurora, N. Y.

Kieb, Mrs. Raymond F. C., Beacon, N. Y.

Kindred, Mrs. John Joseph, Astoria, L. I.

Klopp, Mrs. Henry I., Allentown, Pa.

Kolb, Lawrence, Public Health Service, Ellis Island, New York.

Lambert, Charles I., M. D., First Assistant Physician Bloomingdale Hospital, White Plains, N. Y.

LaMoure, Mrs. Charles T., Lakeville, Conn.

Leszynsky, William M., M. D., Neurologist Harlem Hospital, Lebanon Hospital, New York.

Levy, Louis Spencer, New York.

Lemelson, Julius, Stapleton, S. I., N. Y.

Lewis, Mrs. J. M., Cleveland, Ohio.

Lubin, Edward K., New York City.

Main, Daniel C., M. D., Welaka, Fla.

May, Mrs. James V., North Grafton, Mass.

McCarty, Charles W., New York City.

MacDonald, Miss Elizabeth H., Brooklyn, N. Y.

MacDonald, Mrs. Wm., Jr., Providence, R. I.

McGarr, T. E., Reporter of Association, Albany, N. Y.

McGarr, Mrs. T. E., Albany, N. Y.

McNairy, C. Banks, M. D., Superintendent Training School, State Institution for Mental Defectives, Kingston, N. C.

McPherson, John, M. D., Medical Officer, Tampico, Mexico.

Messmer, Robert A., Milwaukee, Wis.

Miller, Mrs. Henry W., Brewster, N. Y.

Miller, S. M., Chief Resident Physician State Hospital for Insane, Norristown, Pa.

Miller, Thurlow S., St. Francis Hospital, San Francisco, Cal.

- Mills, Mrs. Geo. F., Manager Binghamton State Hospital, Oneida, N. Y.
Mitchell, Mary P., Warren, Pa.
Moosbrugger, Herman F., President State Village for Epileptics, Skillman, N. J.
Moosbrugger, Mrs. Herman F., Somerville, N. J.
Morgan, A. D., State Hospital Commissioner, Ilion, N. Y.
Munn, Anne Cameron, Supervising Nurse Bloomingdale Hospital, White Plains, N. Y.
Murphy, William A., New York City.
Naylor, John Hyatt, Harrisburg, Pa.
Newman, Inez Avery, R. N., Associate Secretary Conn. Society for Mental Hygiene, New Haven, Conn.
O'Brien, John F., M. D., Senior Assistant Physician, Taunton State Hospital, Taunton, Mass.
Offutt, Clara H., Homeopathic State Hospital, Allentown, Pa.
Shea, Peter O., M. D., Trustee Grafton State Hospital, Worcester, Mass.
Page, Mrs. George A., New York City.
Payne, Mrs. Guy, Cedar Grove, N. J.
Penfrase, E. S., Trenton, N. J.
Pettit, Mrs. R. W., Graystone Park, N. J.
Phillips, Charles R., Manager Willard State Hospital, Hornell, N. Y.
Pierce, Lydia Baker, M. D., Junior Physician Homeopathic State Hospital, Allentown, Pa.
Pollock, Horatio M., Statistician New York State Hospital Commission, Albany, N. Y.
Poston, Adele S., Director School of Nursing Bloomingdale Hospital, White Plains, N. Y.
Potter, Howard B., Assistant Physician Bloomingdale Hospital, White Plains, N. Y.
Quirk, Dennis J., M. D., New York City.
Reilly, Miss J., New York.
Richards, John S., M. D., Senior Assistant Physician Randall's Island, New York.
Richardson, Mrs. W. W., Mercer, Pa.
Riley, John J., Inspector State Hospital Commission, Albany, N. Y.
Robinson, Leigh F., M. D., Assistant Surgeon U. S. N., Hartford, Conn.
Robinson, Miss Ruth, Hospital for Insane, London, Ont.
Robinson, Mrs. W. J., Hospital for Insane, London, Ont.
Rosanoff, Mrs. A. J., Kings Park, N. Y.
Russell, Mrs. Wm. L., Bloomingdale Hospital, White Plains, N. Y.
Rutherford, Thomas A., M. D., Superintendent Hillside Home, Clark Summit, Pa.
Ryon, Mrs. Walter G., Poughkeepsie, N. Y.
St. George, A. V., M. D., Pathologist, Bellevue Hospital, New York.
Sampsell, Ward, M. D., First Assistant Physician, Rivercrest Sanitarium, Astoria, N. Y.
Sautter, C. M., M. D., 11 E. 48th St., New York.

- Saxe, Josef, New York.
- Schaller, Dr. Walter F., Assistant Professor of Medicine Leland Stanford, Jr., University, San Francisco, Cal.
- Schneid, Alwin J., State Charities Aid Association, New York.
- Schorer, Cornelia B. J., Psychiatrist Laboratory of Social Hygiene, Bedford Hills, N. Y.
- Schroeder, Theodore, Cos Cob, Conn.
- Scofield, Ethel Lord, Field Worker New Haven, Conn.
- Scribner, Mrs. E. V., Worcester State Hospital, Worcester, Mass.
- Silberg, Charles, Brooklyn.
- Slaughter, Mildred, Research Worker Essex County Hospital, Cedar Grove, N. J.
- Slawson, Miss Jean, New York.
- Smalley, Evelyn Y., Research Department, National Committee for Mental Hygiene, New York.
- Smith, Carolyn, Instructor in Occupation, Philadelphia, Pa.
- Smith, Mrs. George A., Central Islip, N. Y.
- Smith, Susan C., Central Islip, N. Y.
- Smith, MacGregor Jas., President Board of Managers, Central Islip State Hospital, Central Islip, New York.
- Smith, Mrs. James MacGregor, New York.
- Smith, Mrs. S. E., East Haven, Richmond, Ind.
- Smith, Walter J., New York.
- Smith, Mrs. Walter J., New York.
- Solomon, Abraham, New York.
- Stack, Mrs. S. S., Milwaukee, Wis.
- Stoneaker, C. L., Secretary New Jersey State Charities Aid Association, Newark, N. J.
- Streeter, Mrs. Edward, Pennsylvania Hospital, West Philadelphia, Pa.
- Streeter, F. D., M. D., Assistant Physician State Hospital, Central Islip, N. Y.
- Thomas, Albert C., M. D., Superintendent Foxboro State Hospital, Foxboro, Mass.
- Thomas, Heyward G., Oakland, Cal.
- Thomas, Mrs. John W., Matron Louisiana Hospital for Insane, Pineville, La.
- Thompson, George L., Kings Park, N. Y.
- Throckmorton, J. W., Brooklyn, N. Y.
- Tracy, Samuel G., M. D., Bellevue Hospital, New York.
- Tuttle, Mrs. Geo. T., McLean Hospital, Waverley, Mass.
- Toohey, Mrs. John J., Buffalo, N. Y.
- Wagner, Mrs. Charles G., Binghamton, N. Y.
- Weeks, Mrs. David F., Skillman, N. J.
- Wholey, Mrs. C. C., Pittsburgh, Pa.
- Widen, Luther E., Consulting Psychologist, New York.
- Whitney, Mrs. Ray L., McLean Hospital, Waverley, Mass.

Wilde, Walter J., Member Board of Administration, Milwaukee County, Milwaukee, Wis.

Winslow, Paul V., M. D., Brooklyn, N. Y.

Young, Albert F., M. D., Superintendent Milwaukee Hospital for the Insane, Milwaukee, Wis.

AFTERNOON SESSION.

The Association reconvened at 2.45 p. m.

THE PRESIDENT.—Before proceeding with the literary program we will have the report of the Committee on Statistics. Dr. Salmon, Chairman of the committee, is in France, and Dr. Copp will make a preliminary report at this time. I would also announce that I have added to this committee Dr. L. Vernon Briggs of Boston.

DR. COPP.—*Mr. President, Ladies and Gentlemen:* This report was printed and sent to every member of the Association. If anyone has failed to receive it, a copy can be had here at the Secretary's desk. I am assuming that every one has received and also read the report, but this may be a hazardous conclusion; and so it has been suggested that discussion on the report be postponed to some later period in our meeting. At this time I will present the report for your consideration.

REPORT OF THE COMMITTEE ON STATISTICS OF THE AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION.

To the American Medico-Psychological Association:

Your Committee on Statistics since its original appointment at the Niagara Falls meeting in 1913 has held several meetings and has carefully considered the following topics:

1. The desirability of uniform statistics relative to mental diseases and the operation of institutions for the insane.
2. The classification of mental diseases.
3. Forms to be used in reporting statistical data.
4. Means to be adopted to secure uniform statistical reports.

1. THE DESIRABILITY OF UNIFORM STATISTICS RELATIVE TO MENTAL DISEASES AND THE OPERATION OF INSTITUTIONS FOR THE INSANE.

That the statistical data annually compiled by the various institutions for the insane throughout the country should be uniform in plan and scope is no longer open to question. The lack of such uniformity makes it absolutely impossible at the present time to collect comparative statistics concerning mental diseases in different states and countries, and extremely difficult to secure comparative data relative to movement of patients, administration, and cost of maintenance and additions. The importance and need of some system whereby uniformity in reports would be secured have been repeatedly emphasized by officers and members of this Association, by statisticians of

the United States Census Bureau, by editors of psychiatric journals, and by administrative officials in various states. We should know accurately the forms of mental disease occurring in all parts of the country; we should know the movement of patients in every hospital for the insane; we should know the cost of maintenance of patients and the amounts spent for additions and improvements in every state hospital; we should be able to compile annually complete data concerning these and other matters, and compute rates and draw comparisons therefrom. Such data would serve as the basis for constructive work in raising the standard of care of the insane, as a guide for preventive effort, and as an aid to the progress of psychiatry.

2. THE CLASSIFICATION OF MENTAL DISEASES.

Your committee feels that the first essential of a uniform system of statistics in hospitals for the insane is a generally recognized nomenclature of mental diseases. The present condition with respect to the classification of mental diseases is chaotic. Some states use no well-defined classification. In others the classifications used are similar in many respects but differ enough to prevent accurate comparisons. Some states have adopted a uniform system, while others leave the matter entirely to the individual hospitals. This condition of affairs discredits the science of psychiatry and reflects unfavorably upon our Association, which should serve as a correlating and standardizing agency for the whole country.

The large task of your committee therefore has been the formulation of a classification which it could unanimously recommend for adoption by the Association. The task was accomplished only after several prolonged conferences at which classifications now in use in various states and countries, and the recommendations of leading psychiatrists were considered. The classification finally adopted is simple, comprehensive and complete; it copies no other classification but includes the strong features of many others; it meets the demands of the best modern psychiatry but does not slavishly follow any single system. In short, your committee has endeavored to formulate a classification that could be easily used in every hospital for the insane in this country and that would meet the scientific demands of the present day.

The following is the classification submitted for your approval:

PROPOSED CLASSIFICATION OF MENTAL DISEASES.

1. Traumatic psychoses.
2. Senile psychoses.
 - (a) Simple deterioration.
 - (b) Presbyophrenic type.
 - (c) Delirious and confused states.
 - (d) Depressed and agitated states in addition to deterioration.
 - (e) Paranoid states in addition to deterioration.
3. Psychoses with cerebral arteriosclerosis.*

* This includes psychoses following cerebral hemorrhage.

4. General paralysis.
5. Psychoses with cerebral syphilis.
6. Psychoses with Huntington's chorea.
7. Psychoses with brain tumor.
8. Psychoses with other brain or nervous diseases.

The following are the more frequent diseases to be specified when possible:

Cerebral embolism.
Paralysis agitans.
Tubercular or other forms of meningitis (to be specified).
Multiple sclerosis.
Tabes.
Acute chorea.
Other conditions (to be specified).

9. Alcoholic psychoses.
 - (a) Pathological intoxication.
 - (b) Delirium tremens.
 - (c) Acute hallucinosis.
 - (d) Acute paranoid type.
 - (e) Korsakow's psychosis.
 - (f) Chronic hallucinosis.
 - (g) Chronic paranoid type.
 - (h) Alcoholic deterioration.
 - (i) Other types, acute or chronic.
10. Psychoses due to drugs and other exogenous toxins.
 - (a) Morphine, cocaine, bromides, chloral, etc., alone or combined (to be specified).
 - (b) Metals, as lead, arsenic, etc. (to be specified).
 - (c) Gases (to be specified).
 - (d) Other exogenous toxins (to be specified).
11. Psychoses with pellagra.
12. Psychoses with other somatic diseases.
 - (a) Delirium with infectious diseases.
 - (b) Post-infectious psychoses.
 - (c) Exhaustion delirium.
 - (d) Delirium of unknown origin.
 - (e) Diseases of the ductless glands.
 - (f) Cardio-renal disease.
 - (g) Cancer.
 - (h) Other diseases or conditions (to be specified).
13. Manic-depressive psychoses.
 - (a) Manic type
 - (b) Depressive type.
 - (c) Stupor.
 - (d) Mixed type.
 - (e) Circular type.
14. Involution melancholia.

15. Dementia præcox.
 - (a) Paranoid type.
 - (b) Katatonic type.
 - (c) Hebephrenic type.
 - (d) Simple type.
16. Paranoia and paranoic conditions.
17. Psychoneuroses.
 - (a) Hysterical type.
 - (b) Psychasthenic type.
 - (c) Neurasthenic type.
18. Psychoses with mental deficiency.
19. Psychoses with constitutional psychopathic inferiority.
20. Epileptic psychoses.
 - (a) Deterioration.
 - (b) Clouded states.
 - (c) Other conditions (to be specified).
21. Undiagnosed psychoses.
22. Not insane.
 - (a) Epilepsy without psychosis.
 - (b) Alcoholism without psychosis.
 - (c) Drug addiction without psychosis.
 - (d) Constitutional psychopathic inferiority without psychosis.
 - (e) Mental deficiency without psychosis.
 - (f) Others (to be specified).

3. FORMS TO BE USED IN REPORTING STATISTICAL DATA.

Your committee appends hereto a series of forms for uniform reports from institutions for the insane and recommends their adoption by the Association. The forms provide for reports of data that should be annually compiled by every hospital for the insane and that should be available for use by everyone interested in psychiatry or the treatment of mental diseases.

The following is the list of forms recommended:

- Form 1. General information.
- Form 2. Financial statement.
- Form 3. Movement of patients.
- Form 4. Nativity and parentage of first admissions.
- Form 5. Citizenship of first admissions.
- Form 6. Psychoses of first admissions, types as well as principal psychoses to be designated.
- Form 7. Race of first admissions classified with reference to principal psychoses.
- Form 8. Age of first admissions classified with reference to principal psychoses.
- Form 9. Degree of education of first admissions classified with reference to principal psychoses.

- Form 10. Environment of first admissions classified with reference to principal psychoses.
- Form 11. Economic condition of first admissions classified with reference to principal psychoses.
- Form 12. Use of alcohol by first admissions classified with reference to principal psychoses.
- Form 13. Marital condition of first admissions classified with reference to principal psychoses.
- Form 14. Psychoses of readmissions, types as well as principal psychoses to be designated.
- Form 15. Discharges of patients classified with reference to principal psychoses and condition on discharge.
- Form 16. Causes of death of patients classified with reference to principal psychoses.
- Form 17. Age of patients at time of death classified with reference to principal psychoses.
- Form 18. Duration of hospital life of patients dying in hospital, classified with reference to psychoses.

4. MEANS TO BE ADOPTED TO SECURE UNIFORM STATISTICAL REPORTS FROM ALL HOSPITALS FOR THE INSANE.

The first great step toward securing uniform statistical reports from all hospitals for the insane is the adoption by this Association of a classification of mental diseases and a series of forms for statistical tables. The second step will consist in making provision for the annual collection of data from hospitals throughout the country, and the publication of an annual statistical review for distribution to members of this Association. Your committee believes that such statistical work should be conducted by this Association through a committee on statistics who would employ a trained statistician to have direct charge of the collection and tabulation of the reports from the several hospitals. The National Committee for Mental Hygiene has kindly offered to co-operate in this work by tendering the use of its statistical office to the Association. The estimated annual expense of the statistical work contemplated, including printing and postage, would be approximately \$1800. The amount is insignificant compared with the great importance of the work to this Association, to psychiatry, to administrative officials, and to the vast army of mental sufferers.

Your committee would recommend the appointment of a standing committee on statistics, and that such committee be authorized to conduct for the Association the statistical work herein outlined during the ensuing year, and to secure, if possible, the adoption of the Association's classification of mental diseases by federal and state authorities.

The committee desires especially to record its appreciation of the valuable aid rendered by Dr. August Hoch, Director of the Psychiatric Institute of the New York State Hospitals, and Dr. Horatio M. Pollock, Statistician,

New York State Hospital Commission. These gentlemen have given very fully of their time and their experience.

Respectfully submitted,

THOMAS W. SALMON,
OWEN COPP,
JAMES V. MAY,
E. STANLEY ABBOT,
HENRY A. COTTON,
Committee on Statistics.

FORMS.

EXPLANATORY NOTE.

The forms recommended by the committee are submitted herewith in outline with brief explanatory notes; if adopted by the Association they will be printed and ruled in proper form and distributed to the co-operating hospitals. In order to secure uniformity in filling out the blanks, a booklet of directions will be prepared and sent with the forms to the hospitals.

Form 1.

GENERAL INFORMATION.

Relating to.....		Hospital.	
Located at.....		city or postoffice.....State.	
Date correct <i>at end</i> institution year.....		19.....	
unless otherwise specified.			
1. Date of opening as an institution for the insane.....			
2. Type of institution: State, county, city, endowed private, or unendowed private?.....			
3. Hospital plant:			
Value of hospital property.....			
Real estate including buildings.....			
Personal property			
Total			
Total acreage of hospital property*.....			
Acreage under cultivation during year.....			
<hr/>			
4. Medical service:	Men.	Women.	Total.
Superintendents .....	.....	.....	.....
Assistant physicians .....	.....	.....	.....
Medical internes .....	.....	.....	.....
Clinical assistants .....	.....	.....	.....
Total .....	.....	.....	.....
<hr/>			
5. Employees:†	Males.	Females.	Total.
Graduate nurses .....	.....	.....	.....
Other nurses and attendants.....	.....	.....	.....
Social workers .....	.....	.....	.....
All other employees.....	.....	.....	.....
Total .....	.....	.....	.....
<hr/>			
6. Percentage of patients employed during year	Men.	Women.	Total.

* Includes grounds, farm and garden and sites occupied by buildings.

† Not including physicians.

Form 2.

FINANCIAL STATEMENT.

Located at.....Hospital.
city or postoffice.....State.
 For the fiscal year ended....., 19....

RECEIPTS.

1. For maintenance of patients:

Balance on hand from previous fiscal year.....	.....
From appropriations .....	.....
From paying patients.....	.....
From all other sources.....	.....
Total receipts for maintenance.....	.....
2. For all purposes other than maintenance, including new buildings, additions, improvements, etc.:

Balance on hand from previous fiscal year.....	.....
From all other sources .....	.....
Total receipts .....	.....

DISBURSEMENTS.

1. Expenditures for maintenance of patients:

(Under this heading should be included, as outlined in the ten subheads, all items covering maintenance of patients as such, and of plant, i. e., supplies and repairs intended to keep the plant in its present condition or to restore it to its former condition.)

Salaries and wages.....	.....
Provisions .....	.....
Farm and garden.....	.....
Clothing .....	.....
Furniture and furnishings.....	.....
Fuel and light.....	.....
Ordinary repairs and shops.....	.....
Medical supplies .....	.....
Transportation of patients.....	.....
Miscellaneous, including general supplies, lawns, roads, grounds, etc. ....	.....
Total expenditures for maintenance.....	.....
 2. Expenditures for all purposes other than maintenance, including new buildings, additions, improvements, etc.

(Under this heading should be placed all expenditures for items, such as additional land [bought or reclaimed], new buildings, new equipment [not replacements], etc., which represent, not restorations, but improvements or additions to plant.)

Total expenditures
--------------------------	-------
- Amount returned to state treasurer or other officials
- Balance on hand at close of year.....
- (Includes balance for maintenance and for all other purposes.)
- Total disbursements, including balance on hand... ..
- (This item should equal total receipts.)

Form 3.

MOVEMENT OF INSANE PATIENT POPULATION.

For year beginning.....and ending.....
in the.....Hospital.

Located at.....

Includes all admitted insane patients on books of institution regardless of the method of admission, whether voluntary, committed, emergency, temporary care, for observation or otherwise; but does not include those who are *only* dispensary or out-patient cases.

	Males.	Cases. Females.	Total.
1. Insane patients on books of institution at beginning of institution year
(Includes patients away from institution on parole, boarded out, on visit, and escaped, but still on books.)			
Admissions during year:			
a. First admissions
(Includes all insane patients admitted for the first time to any institution for the insane, public or private, wherever situated, in or outside of state, excepting institutions for temporary care only.)			
b. Readmissions
(Includes all insane patients admitted who have been previously under treatment in an institution for the insane, excepting transfers, [c], and patients who have received treatment only in institutions for temporary care only [a]).			
Total admissions
c. Transfers from other institutions for the insane.....
(Includes all insane patients coming directly from any other institution for the insane, public or private, in same state, excepting institutions for temporary care.)			
2. Total received during year.....
(Includes total of items a, b, c.)			
3. Total under treatment during year...
(Includes total of items 1 and 2.)			
Discharged from books during year:			
(Does not include patients away from institution on parole, on visit, boarded out or on other temporary leave from hospital. Escapes when discharged should be included in a, b, c or d, according to condition when escape occurred.)			
a. As recovered

b. As improved .....	.....	.....	.....
(Does not include transfers.)			
c. As unimproved .....	.....	.....	.....
(Includes all insane patients discharged not benefited by treatment, exclusive of transfers.)			
d. As not insane.....	.....	.....	.....
(Includes all discharged patients who though admitted as insane are found to have had no psychosis.)			
e. Transferred to other institutions for the insane.....	.....	.....	.....
(Includes all insane patients sent directly to any other institution for the insane, public or private, in same state, excepting institutions for temporary care.)			
f. Died during year.....	.....	.....	.....
4. Total discharged from books during year .....	.....	.....	.....
(Includes total of items a, b, c, d, e and f.)			
5. Insane patients remaining on books of institution at end of institution year .....	.....	.....	.....
(Includes patients away from institutions on parole, boarded out, on visit and escaped.)			
This total should equal total under treatment (3) less discharges (4).			

SUPPLEMENTARY DATA.

6. Average daily number of insane patients actually in the institution during year.....	.....	.....	.....
7. Average daily number of other insane patients on books, but away from institution on parole, on visit, boarded out, escaped, or on temporary leave.....	.....	.....	.....
8. Number of insane voluntary patients admitted during year.....	.....	.....	.....
9. Number of non-insane patients or inmates in institution at end of institution year:			
a. Drug cases .....	.....	.....	.....
b. Inebriates .....	.....	.....	.....
c. Neurological cases .....	.....	.....	.....
d. Epileptics (not feeble-minded) .....	.....	.....	.....
e. Feeble-minded cases (not epileptics) .....	.....	.....	.....
f. Feeble-minded epileptics .....	.....	.....	.....
g. All other cases.....	.....	.....	.....
h. Persons given advice or treatment in out-patient departments during year.....	.....	.....	.....

Form 4.

.....Hospital.

NATIVITY OF FIRST ADMISSIONS AND OF PARENTS OF FIRST ADMISSIONS,
YEAR ENDING.....

Nativity.	Patients. M. F. T.	Parents of male patients M. F. T.	Parents of female patients. M. F. T.
United States			
Africa			
Asia *			
Atlantic Islands			
Australia			
Austria			
Belgium			
Bohemia			
Canada †			
Central America			
China			
Cuba			
Denmark			
England			
Europe ‡			
Finland			
France			
Germany			
Greece			
Hawaii			
Holland			
Hungary			
India			
Ireland			
Italy			
Japan			
Mexico			
Norway			
Philippine Islands			
Poland			
Porto Rico			
Portugal			
Roumania			
Russia			
Scotland			
South America			
Spain			
Sweden			
Switzerland			
Turkey in Asia			
Turkey in Europe			
Wales			
West Indies §			
Other countries			
Born at sea			
Total foreign born			
Unascertained			
Grand total			

(Form to be ruled.)

* Not otherwise specified.

† Includes Newfoundland.

‡ Not otherwise specified.

§ Except Cuba and Porto Rico.

Form 5.

.....Hospital.

CITIZENSHIP OF FIRST ADMISSIONS.

	Males.	Females.	Total.
Citizens by birth.....
Citizens by naturalization*.....
Aliens
Citizenship unascertained
Total

Form 6.

.....Hospital.

PSYCHOSES OF FIRST ADMISSIONS.

Psychoses.	Males.	Females.	Total.
1. Traumatic
2. Senile, total
(a) Simple deterioration
(b) Presbyophrenic type
(c) Delirious and confused states
(d) Depressed and agitated states
in addition to deterioration
(e) Paranoid states in addition
to deterioration
3. With cerebral arteriosclerosis.....
4. General paralysis
5. With cerebral syphilis.....
6. With Huntington's chorea.....
7. With brain tumor.....
8. With other brain or nervous diseases,
total
Cerebral embolism
Paralysis agitans
Tubercular or other forms of
meningitis
Multiple sclerosis
Tabes
Acute chorea
Other conditions
9. Alcoholic, total
(a) Pathological intoxication
(b) Delirium tremens
(c) Acute hallucinosis
(d) Acute paranoid type.....
(e) Korsakow's psychosis
(f) Chronic hallucinosis
(g) Chronic paranoid type.....
(h) Alcoholic deterioration
(i) Other types, acute or chronic
10. Due to drugs and other exogenous
toxins, total
(a) Morphine, cocaine, bromides,
chloral, etc., alone or com-
bined

* Includes naturalization by court, marriage and by naturalization of parent or husband.

	(b) Metals, as lead, arsenic, etc...	.....	.....	.....
	(c) Gases .....	.....	.....	.....
	(d) Other exogenous toxins.....	.....	.....	.....
11.	With pellagra .....	.....	.....	.....
12.	Psychoses with other somatic diseases, total .....	.....	.....	.....
	(a) Delirium with infectious diseases .....	.....	.....	.....
	(b) Post-infectious psychoses ....	.....	.....	.....
	(c) Exhaustion delirium .....	.....	.....	.....
	(d) Delirium of unknown origin..	.....	.....	.....
	(e) Diseases of the ductless glands .....	.....	.....	.....
	(f) Cardio-renal disease .....	.....	.....	.....
	(g) Cancer .....	.....	.....	.....
	(h) Other diseases or conditions (to be specified) .....	.....	.....	.....
13.	Manic-depressive, total .....	.....	.....	.....
	(a) Manic type .....	.....	.....	.....
	(b) Depressive type .....	.....	.....	.....
	(c) Stupor .....	.....	.....	.....
	(d) Mixed type .....	.....	.....	.....
	(e) Circular type .....	.....	.....	.....
14.	Involution melancholia .....	.....	.....	.....
15.	Dementia præcox, total.....	.....	.....	.....
	(a) Paranoid type .....	.....	.....	.....
	(b) Katatonic type .....	.....	.....	.....
	(c) Hebephrenic type .....	.....	.....	.....
	(d) Simple type .....	.....	.....	.....
16.	Paranoia and paranoic conditions...	.....	.....	.....
17.	Psychoneuroses, total .....	.....	.....	.....
	(a) Hysterical type .....	.....	.....	.....
	(b) Psychasthenic type .....	.....	.....	.....
	(c) Neurasthenic type .....	.....	.....	.....
18.	With mental deficiency.....	.....	.....	.....
19.	With constitutional psychopathic inferiority .....	.....	.....	.....
20.	Epileptic, total .....	.....	.....	.....
	(a) Deterioration .....	.....	.....	.....
	(b) Clouded states .....	.....	.....	.....
	(c) Other conditions .....	.....	.....	.....
21.	Undiagnosed .....	.....	.....	.....
22.	Not insane, total.....	.....	.....	.....
	(a) Epilepsy without psychosis...	.....	.....	.....
	(b) Alcoholism without psychosis .....	.....	.....	.....
	(c) Drug addiction without psychosis .....	.....	.....	.....
	(d) Constitutional psychopathic inferiority without psychosis..	.....	.....	.....
	(e) Mental deficiency without psychosis .....	.....	.....	.....
	(f) Others .....	.....	.....	.....

Form 7.

.....Hospital.

RACE OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO PSYCHOSES.

Psychoses.

Total
M. F. T.(Separate columns will be
provided for each prin-
cipal group of psychoses
from 1 to 22.)

Race.

African (black)
 American Indian
 Armenian
 Bulgarian
 Chinese
 Cuban
 Dutch and Flemish
 East Indian
 English
 Finnish
 French
 German
 Greek
 Hebrew
 Irish
 Italian *
 Japanese
 Korean
 Lithuanian
 Magyar
 Mexican
 Pacific Islander
 Portuguese
 Roumanian
 Scandinavian †
 Scotch
 Slavonic ‡
 Spanish
 Spanish American
 Syrian
 Turkish
 Welsh
 West Indian §
 Other specific races
 Mixed
 Race unascertained
 Total

(Form to be ruled.)

* Includes "North" and "South."

† Norwegians, Danes and Swedes.

‡ Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Slovak, Slovenian.

§ Except Cuban.

Form 8.

.....Hospital.

AGE OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES.

Psychoses.	Total.	Under 15	Separate columns will be provided for each quinquennial age group from 15 to 80 years.
	M. F. T.	years M. F. T.	
1. Traumatic			
2. Senile			
3. With cerebral arterio-sclerosis			
4. General paralysis			
5. With cerebral syphilis			
6. With Huntington's chorea			
7. With brain tumor			
8. With other brain or nervous diseases			
9. Alcoholic			
10. Due to drugs and other exogenous toxins			
11. With pellagra			(Form to be ruled.)
12. With other somatic diseases			
13. Manic-depressive			
14. Involution melancholia			
15. Dementia præcox			
16. Paranoia and paranoic conditions			
17. Psychoneuroses			
18. With mental deficiency			
19. With constitutional psychopathic inferiority			
20. Epileptic			
21. Undiagnosed			
22. Not insane			

Form 9.

.....Hospital.

DEGREE OF EDUCATION OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO PSYCHOSES.

Psychoses.	Total.	Illiterate.	Reads and writes.	Common School.	High School.	College.	Unascertained.
	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.
(Names of principal psychoses to be inserted as in Form 8.)							

(Form to be ruled.)

Form 10.

.....Hospital.

ENVIRONMENT OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO
PRINCIPAL PSYCHOSES.

Psychoses.	Total.	Urban.	Rural.	Unascertained.
	M. F. T.	M. F. T.	M. F. T.	M. F. T.

(Names of
principal
psychoses
to be in-
serted as
in Form 8.)

(Form to be ruled.)

Form 11.

.....Hospital.

ECONOMIC CONDITION OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO
PRINCIPAL PSYCHOSES.

Psychoses.	Total.	Dependent.	Marginal.	Comfortable.	Unascertained.
	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.

(Names of
principal
psychoses
to be in-
serted as
in Form 8.)

(Form to be ruled.)

Form 12.

.....Hospital.

USE OF ALCOHOL BY FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO
PRINCIPAL PSYCHOSES.

Psychoses.	Total.	Abstinent.	Temperate.	Intemperate.	Unascertained.
	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.

(Names of
principal
psychoses
to be in-
serted as
in Form 8.)

(Form to be ruled.)

Form 13.

.....Hospital.

MARITAL CONDITION OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO
PRINCIPAL PSYCHOSES.

Psychoses.	Total.	Single.	Married.	Widowed.	Separated.	Divorced.	Unascertained.
	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.

(Names of
principal
psychoses
to be in-
serted as
in Form 8.)

(Form to be ruled.)

Form 14.

.....Hospital.

PSYCHOSES OF READMISSIONS.

(Same form as Form 6, "Psychoses of first admissions.")

Form 15.

.....Hospital.

DISCHARGES OF PATIENTS CLASSIFIED WITH REFERENCE TO PRINCIPAL
PSYCHOSES AND CONDITION OF DISCHARGE.

Psychoses.	Total.	Recovered.	Improved.	Unimproved.	Not insane.
	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.

(Names of
principal
psychoses
to be in-
serted as
in Form 8.)

(Form to be ruled.)

Form 16.

.....Hospital.

CAUSES OF DEATH OF PATIENTS CLASSIFIED WITH REFERENCE TO PRINCIPAL
PSYCHOSES.

Cause of death.

Total.

(Diseases to be inserted in accord-
ance with international list as
used in U. S. Public Health Ser-
vice.)(Insert names of principal psy-
choses with subdivisions by sex
as in Form 7.)

(Form to be ruled.)

Form 17.

.....Hospital.

AGE OF PATIENTS AT TIME OF DEATH CLASSIFIED WITH REFERENCE TO
PRINCIPAL PSYCHOSES.

(Same form as Form 8.)

(Form to be ruled.)

Form 18.

.....Hospital.

TOTAL DURATION OF HOSPITAL LIFE OF PATIENTS DYING IN HOSPITAL
CLASSIFIED ACCORDING TO PSYCHOSES.

Psychoses.	Total.	Less than 1 month.	1-3 months.	4-7 months.	8-12 months.	1-2 years.	3-4 years.
	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.

(Additional periods to be added.)

(Names of
principal
psychoses
to be in-
serted as
in Form 8.)

(Form to be ruled.)

THE PRESIDENT.—Agreeably to Dr. Copp's request, all action on the report will be left to a later meeting.

We will now proceed to the literary program, the first paper of the afternoon being "A Wider Field of Activity for the Association," by Dr. James V. May.

At the close of Dr. May's paper, the President announced that discussion was in order.

Dr. May's paper was discussed by Drs. Stedman, Wm. A. White, Gershom Hill, F. W. Robertson, Copp, Blumer, Work, MacDonald, Wm. A. Jones, Carmichael and Dr. May in closing.

THE PRESIDENT.—The next paper will be "The Influence of Great Wars on Thought and Progress," by Dr. Charles K. Mills, and Dr. T. H. Weisenburg of Philadelphia.

DR. MILLS.—Mr. President, I might say as an introductory note, that as this paper was originally planned it was intended to be in two parts; one relating to the psychology of war, which was assigned to me, and the other on material progress as illustrated by the present and perhaps other wars. This was to have been taken up by Dr. Weisenburg. He has been prevented by circumstances from coming to the meeting and therefore it was decided between us that I should simply present what might be termed the psychology of the present war. It may be thought perhaps by some of those present that this subject is one not strictly of a medical character, and therefore, it may be somewhat frowned upon by those who would have us adhere strictly to psychiatry. Nevertheless, the psychology of war is largely a morbid psychology and in so far as it is this, its study certainly must be a source of illumination to the psychiatrist. I shall present this paper practically in the abstract, giving it greater length when it comes to be presented for publication.

Dr. Mills then read his paper in abstract.

THE PRESIDENT.—Dr. Mills' paper is before the Association for discussion. It is an exceedingly interesting paper and I would be glad to hear from any member who desires to discuss it.

DR. DERLIN.—Mr. President, I have no intention of discussing the paper of the last distinguished speaker, but simply desire to say a few words on a related point. I may say that we are engaged at the present time, in Canada, with the problem of the mental condition of soldiers sent back as insane, and also with that of the mental condition of soldiers departing for the front. I would suggest to your Association the necessity of impressing upon your government the importance of adequately dealing from the very outset with the question of insanity in the army. We have made recommendation to the Dominion Government to establish regional psychiatric boards similar to those which were established in France early in the war, in order to supplement the work of the Army Medical Corps at the front. The work of these boards will, above all, enable the government to remove from the

army the recruit who is mentally deficient and thus save the country from the danger, worry and expense that his presence in the ranks entails.

THE PRESIDENT.—The next paper will be read by Dr. Chas. P. Bancroft, of Concord, N. H., "Ought Limited Responsibility to be Recognized by the Courts?"

Dr. Bancroft's paper was discussed by Drs. Wm. A. White and Harris and Dr. Bancroft in closing.

The President then announced as the next paper, "Sketches from Psychiatric Clinics of Yesterday, To-day and To-morrow," by William McDonald, M. D., Providence, R. I.

There being no discussion of Dr. McDonald's paper, the President announced as the next paper, "The Need of Closer Relationship between Psychiatry and the Medical Schools," by Arthur H. Ruggles, M. D., Providence, R. I.

DR. RUGGLES.—Mr. President, Dr. James, in his address this morning, stated that he thought that a paper bearing on this subject should be presented. I am afraid if he were here he would be disappointed in one respect, at least; and that is, because it is rather elementary. I was not in a position to outline an ideal course in psychiatry that a medical school should give. I have only attempted to point the way in which more energetic work among teachers of psychiatry should go, and to make a plea for a more intensive scheme of clinical teaching before the student goes out to practice. I am sure that the simplicity of the terms I have used would appeal to Dr. James and I am also of opinion that the brevity of my paper will appeal to all of you.

At the close of Dr. Ruggles' paper it was discussed by Drs. Bancroft, Locke, Harris and Dr. Ruggles in closing.

The President announced as the next paper, "Psychiatric Problems at Large," by A. J. Rosanoff, M. D., of New York.

At the close of Dr. Rosanoff's paper, the President suggested that discussion be deferred until Dr. Walter B. Swift's paper, "Essential Phases of Psychology for Medical Schools," had been read.

Dr. Swift then read his paper, after which the papers of Drs. Rosanoff and Swift were discussed by Dr. Wm. A. White.

At the close of Dr. White's remarks, the Association took a recess until 8 p. m.

EVENING SESSION.

The President called the Association to order at 8.15 p. m.

THE PRESIDENT.—The first paper scheduled for this evening to be read by Dr. Adolph Meyer will be deferred until the auditors have presented a report.

Dr. Heyman presented the following report:

MAY 29, 1917.

I hereby certify that I have examined the bills, vouchers and papers submitted by the AMERICAN JOURNAL OF INSANITY as to receipts and disbursements, and compared the accounts with the reports submitted to the Association and find the same correct as submitted.

W. B. HEYMAN, *Auditor*.

On motion the report of the auditor was accepted and adopted.

The President then announced as the title of Dr. Meyer's paper, "The Aims and Meaning of Psychiatric Diagnosis."

At the close of Dr. Meyer's paper the President announced that discussion was in order.

Dr. Meyer's paper was discussed by Dr. Abbot and Dr. Meyer in closing.

The President announced the next paper, "Preventable and Avoidable Causes of Insanity," by Dr. Charles W. Burr, of Philadelphia, Pa.

This paper was discussed by Drs. Wm. A. White, Southard, Mitchell, Adolf Meyer and Dr. Burr in closing.

The President announced that owing to Dr. Hoch's absence, his paper on "The Psychoses Associated with Cerebral Syphilis Resembling the Constitutional Reaction," would not be presented and that the next paper would be read by Dr. Earl D. Bond, of Philadelphia, "A Study of Self-Accusation."

At the close of Dr. Bond's paper, the President again reminded members and visitors of the necessity of registration.

There being no discussion of Dr. Bond's paper, the President announced the next paper as "Dementia Præcox in Early Childhood," by Dr. C. K. Clarke, of Toronto, Ontario.

Dr. Clarke not being present at the meeting, the President announced as the next paper, "Principles of Diagnosis in Psychiatry," by Dr. E. Stanley Abbott, of Waverley, Mass.

At the close of Dr. Abbot's paper, there being no discussion, the President announced the program of the evening session completed and the Association adjourned until Wednesday morning, May 30, at 10 a. m.

WEDNESDAY, MAY 30, 1917.

MORNING SESSION.

The President called the Association to order at 10.05 a. m. and announced that Vice-President Anglin would preside during his temporary absence from the morning session.

The President called for a report of the council.

The Secretary announced that the following names were submitted for associate membership and that it would be necessary to have them lie on the table until to-morrow when action could properly be taken:

Karl Murdock Bowman, M. D., White Plains, N. Y.; Charles I. Lambert, M. D., White Plains, N. Y.; Wm. W. Eichelberger, M. D., Harrisburg, Pa.; Donald R. Gilfillan, M. D., Worcester, Mass.

The Council recommends for final action to-day the following:

Felix M. Adams, M. D., Vinita, Okla.; Charles R. Ball, M. D., St. Paul, Minn.; Edwin P. Bledsoe, M. D., Little Rock, Ark.; Robert Morris Butler, M. D.; Jackson, Miss.; Charles McFie Cambell, M. D., Baltimore, Md.; Lionel L. Cazenavette, M. D., New Orleans, La.; Marcel J. De Mahy, M. D., New Orleans, La.; John W. Duke, M. D., Guthrie, Okla.; Edward J. Engberg, M. D., St. Paul, Minn.; Charlotte S. Farrington, M. D., Philadelphia, Pa.; Henry G. Gahagan, M. D., Elgin, Ill.; James Greenwood, M. D., Houston, Tex.; Ernest M. Hammes, M. D., St. Paul, Minn.; Charles B. Hill, M. D., Supply, Okla.; Andrew W. Hoisholt, M. D., Napa, Cal.; Arthur G. Hyde, M. D., Cleveland, Ohio; H. C. Kehoe, M. D., Frankfort, Ky.; Cheston King, M. D., Atlanta, Ga.; William S. Lindsay, M. D., Topeka, Kans.; S. Metz Miller, M. D., Norristown, Pa.; Angus W. Morrison, M. D., Minneapolis, Minn.; Joseph A. O'Hara, M. D., New Orleans, La.; F. L. Peddicord, M. D., Lakeland, Ky.; Harriet E. Reeves, M. D., Melrose, Mass.; G. E. Scrutchfield, M. D., Farmington, Mo.; Charles V. Unsworthy, M. D., New Orleans, La.; A. F. Young, M. D., Milwaukee, Wis.; Beverly Young, M. D., San Antonio, Tex.

These names were presented a year ago after action by the Council, were read by the Association, were read again by the Council and presented again to the Association for final action.

DR. WOODSON.—Mr. President, as much care has been taken in going over the names of these applicants, I move that the Secretary be permitted to cast one vote representing the action of the Association on these several names at this time.

The motion was duly seconded and adopted unanimously and the President declared the applicants elected to active membership.

The Secretary announced the following list of candidates for transfers from associate to active membership: These have all been members for three years or more and are eligible for such transfer as they request. They were read yesterday and are recommended by the Council for such transfer.

* Paul J. Alspaugh, M. D., Massillon, Ohio; Earl D. Bond, M. D., Philadelphia, Pa.; Edgar L. Braunlin, M. D., Dayton, Ohio; George F. Brewster, M. D., New York, N. Y.; H. M. Brundage, M. D., Columbus, Ohio; Ross McC. Chapman, Washington, D. C.; E. H. Cohoon, M. D., Boston, Mass.; Arrah B. Evarts, M. D., Washington, D. C.; John B. McDonald, M. D., Hathorne, Mass.; A. C. Matthews, M. D., Napa, Cal.; H. C. Podall, M. D., Norristown, Pa.; Charles F. Read, M. D., Watertown, Ill.; Ralph S. Reed, M. D., Central Islip, N. Y.; Arthur H. Ruggles, M. D., Providence, R. I.; Wm. B. Terhune, M. D., Jackson, La.; Tom B. Throckmorton, M. D., Des Moines, Ia.; Adaline Westcott, M. D., Newburgh, N. Y.; Esther S. B. Woodward, M. D., White Plains, N. Y.

DR. SMITH.—Mr. President, I move that the transfer of names be authorized and the Secretary be directed to cast one ballot representing the Association in transferring these associate members to the active list.

The motion was duly seconded and adopted unanimously.

DR. BRUSH.—Mr. President, I have prepared a preamble and resolution on the subject of the cooperation of this Association with the heads of the army and navy and the recruiting services which I would submit for your consideration.

Dr. Brush's resolution was as follows:

The American Medico-Psychological Association, composed of physicians in charge of or connected with institutions for the insane and mentally defective in the United States and Canada, or who in their practice devote themselves to psychiatry or neurology desires

First, to place on record its hearty accord with the government of the United States in its active participation in the European war.

Second, it desires to offer its services as an organization and the services of its individual members as far as such services can be effective or can be made available in doing everything possible to render the participation of the United States in the conflict more active, more certain and more efficient. To accomplish these purposes it believes that the services of trained psychiatrists and neurologists are necessary and should be availed of in at least three departments of the medical service of the United States Army and Navy, and that these departments are in the order of importance:

First, the recruiting service.

Second, the base of field hospitals at or near the scene of active military activities.

Third, hospitals already established or to be established in the country for the reception of soldiers or sailors needing hospital care in this country or sent here from overseas.

Resolved, Therefore, that representations be made to the Surgeons General of the United States Army and Navy and to the staff corps of the army and navy urging the employment, as far as possible, in conjunction with the medical officers of the army and navy on recruiting service of psychiatrists and neurologists to aid in the examination of volunteers and of conscripts to the end that persons suffering from mental disorder or defect or with neuroses, and persons who appear obviously unfit for service by reasons of psychopathic tendencies be prevented from entering or being retained in either branch of the service.

Resolved, further, that to accomplish the objects of this Association there shall be appointed by the Chair a committee to be called the Committee on Military and Naval Organization, which shall be instructed to communicate with the proper authorities of the War and Navy Departments, with the Council of National Defense, the Research Council and with the National Committee for Mental Hygiene, urging the necessity of psychiatric and neurological cooperation and work in the three lines heretofore enumerated, and in such other directions as may upon conference be further determined.

Resolved, that this committee, after such consultation with the departments and organizations above enumerated, be instructed to formulate plans for the cooperation of this Association as a body, and of its members individually with the departments of the army and navy, which plan shall be submitted to the Council of this Association for approval.

Resolved, That upon the approval of the plan or plans the committee be authorized and directed to at once communicate with the individual members of this Association and prepare a list of such members as are willing:

First, to serve as psychiatric consultants for various military and naval branches either in recruiting service or the examination of recruits or sailors in training.

Second, to enter one of the reserve corps for such service in psychiatry as may be required.

Third, who would be willing to be assigned to duty during the war in this country for any medical service?

Fourth, who would be willing to perform needed duties overseas of any kind required?

Fifth, who would be willing to be attached to psychiatric units; first, at home, second, abroad, during the war?

Resolved, That the committee charged with the performance of the duties above enumerated shall confer with the committees from other medical organizations as far as may be possible or as may seem to the committee of value in order to prevent the duplication of work and to bring about complete and harmonious cooperation with other medical organizations having similar purposes in view.

Resolved, That the committee be authorized to draw upon the Treasurer for actual expenses in an amount not to exceed —, to be accounted for by proper vouchers.

The resolutions were seconded by Dr. MacDonald.

THE PRESIDENT.—I would like to say in this connection that I had prepared a resolution as referred to in my address, which I intended to offer; but Dr. Brush's resolutions are so much more comprehensive and cover so satisfactorily all that I had in mind that I shall not offer my resolution but ask your consideration of his.

DR. WOODSON.—Mr. President, although this committee appears to be willing to vote money from the treasury to carry out the purposes outlined, it occurs to me that a committee appointed by yourself on this occasion ought to be patriotic enough to work without compensation. Every one is doing something to help preparedness along and we have made a heavy draft on our treasury, and to make an appropriation for a blank sum to be used, I think that ought not to be favored by the Association. It will not be very difficult to get the United States Government to accept the services of any man who wants to enter the army, if he is competent, and to formulate and to write a few letters and to correspond with the proper authorities will not cost very much; it ought to require very little outlay, indeed.

I think with this exception Dr. Brush's resolutions are entirely suitable. I think the reference to the taking of funds from the treasury ought to be left off and I move that that part be stricken off.

DR. BRUSH.—Mr. President, I am afraid Dr. Woodson is unduly frightened by that word "blank" or by the word "money." I expected that the amount would be filled in and a definite sum fixed for expenditure when the resolutions were adopted, if they were adopted. I am quite sure that every man belonging to this organization who would be appointed by the Chair on this committee would be entirely willing to put his hand in his pocket and contribute to the expense of the work, but I think Dr. Woodson minimizes the amount of work to be done. I want to say to the Chair and to any gentlemen who may be appointed on this committee that it is a much larger work than Dr. Woodson apparently has any idea of. I conferred with the departments of the army and navy and I have conferred with members of the Council for National Defense concerning these matters. I pointed out last week three instances in one day, one of a high grade, dangerous imbecile enlisted in the navy who only last August made a homicidal attack upon a young man; another of a man suffering from a hypomaniacal condition who the day he was enlisted came under my care; and the third, with a paranoid dementia præcox was enlisted in the army and remained there long enough to be a potential pensioner upon the government. He ought never to have been received; in fact, none of them should have been received. I am willing to go to the recruiting stations near me whenever my services are asked for purposes of consultation

with the authorities if they come across any case needing my attention, but they have no authority to ask any advice in consultation, or any assistance.

I feel that I have some ability in making a neurological or psychiatric examination but the department gives me no authority and until I get that, what can I do. I am not the only one who has had these difficulties. I came here on Sunday with a gentleman who is now on the seas, giving up a very lucrative practice to perform special medical service abroad. He has been laboring with departments at Washington for months to get them to appreciate the necessity of employing specialists in various departments in the recruiting service alone to say nothing of the hospitals abroad and in this country. Now, if a plan is formulated, and I believe that a committee can be chosen from this Association to formulate a plan, it will be a feasible plan which can be brought to the attention of the authorities at Washington and so formulated as to enable each one of us to do our bit. If that plan is formulated I imagine it will involve the personal writing to every member of this Association to find out what hole he is willing to place himself in; what emergency he is willing to meet; how far he is willing to sacrifice his time and his energies in rendering aid to the government. It will require a good deal of work, the expenditure of a considerable amount for postage, a certain amount of travel—in fact, it is going to require a good deal of attention and the constant time of a stenographer or two for two or three weeks. If the Association treasury hasn't the money I am perfectly willing for one to do what the American Neurological Society did in Boston last week in assessing every member \$10 to pay for work similar to this. Are we going to be behind them? Are we going to be afraid to spend some money when our friends on the other side are spending their blood? I believe not.

DR. WHITE.—Mr. President, I am heartily in favor of this Association placing itself upon record in any proper way in offering to furnish expert services in the various ways outlined by Dr. Brush; but it is going to be quite a job to do that and I think the Association should avail itself of all the various agencies which are now existing and inasmuch as there is one to which I belong engaged in the work already, I will venture to mention it. The National Committee for Mental Hygiene is already in the field and anything this Association does ought to be done, if not in conjunction, at least in cooperation with them, so that the two fields of endeavor do not cross. The National Committee has already a subcommittee appointed for furnishing psychiatric units to the army and navy. Their plans have been reviewed by the surgeon generals of the army and navy and we have already been requested to furnish the personnel of four psychiatric units for service abroad and I expect those units will sail in a few days. The National Committee has been recognized by the War and Navy Departments for this particular work in exactly the same way that the Red Cross has been recognized for getting together the Red Cross units; and the army and navy recognize this to such an extent that the

National Committee is expected to recommend volunteers and these are accepted by the government. In this way something could be accomplished through cooperation with the National Committee. This committee is constantly working along this line, is in continuous session all the while, and if the committee of this organization is coming into the business they must be prepared to be at it also all the while. It is not simply the passing of a resolution; it means work and plenty of work. Then I am pleased to inform this Association that the matter of psychiatry has come to be represented upon the Research Council of Defense. Dr. Paton has been appointed on the Council and has appointed a Committee on Psychiatry; so there is a research committee on psychiatry, the function of which will undoubtedly be to take up all matters which bear even indirectly on these problems. We have the problem of enlistment; what kind of people are presenting themselves and what number should be rejected. I can assure the committee that there will be something more for them to do, other lines of activity than merely writing to the Defense Council, which is a proper enough thing to do. Now I have a suggestion to offer to Dr. Brush in regard to that blank in his resolution and in regard to the money. Let us begin now and deny ourselves some of our pleasures. Somebody went around and got a lot of money from various merchants totalling \$975. I move that in the space left blank in Dr. Brush's resolution the sum of \$975 be set aside for the use of this committee in their work. If we want to go on excursions let us pay our own expenses.

At this point Vice-President Anglin took the chair.

DR. MEYER.—Mr. Chairman, I should like to say that I believe that the motion of Dr. Brush should be accepted for consideration by a committee which would take up immediately the consideration of collaboration with the forces already at work so that the energy of this Association can assert itself to the best possible advantage, and I should therefore like to motion that the Chairman appoint a committee which should take up to-day this problem of collaboration to report to-morrow some plan of procedure.

The motion of Dr. Meyer was seconded by Dr. S. E. Smith.

DR. BRUSH.—Mr. President, I think that is a most excellent idea. I think you will recall that I said in the resolutions I introduced that we should confer with the National Committee for Mental Hygiene and with the Council of Defense but I may have left out inadvertently the Research Council; I should have added that, and also such other organizations and committees as are working for harmonious action and for the prevention of duplication. I believe any committee appointed should cooperate with the National Committee for Mental Hygiene. Dr. Meyer's idea is a most excellent one, to report to-morrow as to the best plans for cooperation, for certainly we must avoid the tremendous duplication of effort going on all over the country.

DR. S. E. SMITH.—Mr. President, before the motion is put, I would like to say that I am in full agreement with the resolution and will vote for it

and I think that the reference to a special committee is very wise and proper and will serve to prevent duplication of work. I believe it is important for this Association to begin at the ground but not to cover the ground already covered by the National Committee for Mental Hygiene; I would vote against the motion if I didn't think that the good sense and judgment of the committee would lead them to cooperate with the National Committee. It is too late for us to start this work independently and build it up wholly within the Association.

DR. BRIGGS.—Mr. President, I would like to say that in Massachusetts we have got that investigation under way. We have a committee appointed to ascertain how many of our superintendents and our mental men desire to undertake active service and where they will serve. The papers are filled out by all of the medical officers of our state hospitals; we have 61 papers in all to date. It was the desire of this sub-committee in Massachusetts to do this work for our state and to place all their material in the hands of the National Committee for their consideration and for their information as to whom they might call on and for what service. I think that this committee can, in some such way, cooperate with the National Committee for Mental Hygiene so that all duplication would be avoided.

President Wagner resumed the chair.

DR. CARLOS MACDONALD.—Mr. President, with all due respect to Dr. White, who suggests that the funds in the hands of the Committee on Arrangements be turned over to meet the expenditures of this committee, I would say that as the obligations already incurred or contracted for will probably exhaust the fund, the Committee on Arrangements would not feel at liberty to turn it over to the Association to be used for other purposes. I am, however, perfectly willing to put my hand into my own pocket to any extent that may be necessary to meet my share of the expense of this movement, for I am heartily in favor of it.

The work that psychiatrists and neurologists are expected to do should not require an age limit or a consideration of it, providing a man is in good physical and mental health, and vigorous and active. We, as psychiatrists, are perfectly qualified to examine recruits with reference to their mental fitness for the service, and to pass upon applicants for discharge on the ground of nervous and mental disability. I, for one, feel perfectly qualified to perform that work either here or overseas.

DR. BLUMER.—Mr. President, before taking up the business I have in hand I should like to say for the encouragement of Dr. MacDonald and other older members of this Association who may be in the stage of euphoric presenility that Dr. W. W. Keen, of Philadelphia, who is 80 years of age, has recently received his commission as major, his first commission having borne date of 1864.

I have a report, Mr. President, from Dr. Hurd, of the Committee on the Institutional Care of the Insane. I will read his letter first.

BALTIMORE, May 19, 1917.

DEAR DR. BLUMER: Enclosed please find my statement as Chairman of the Committee on the Institutional Care of the Insane, which I have just signed. You see where we stand and that I have asked for an appropriation to cover the deficit of the first three volumes with authority given to the Council to order the payment of the deficit on the fourth volume when that account is settled up. I anticipate that this will not be far from eight or nine hundred dollars, but I cannot decide the matter just now.

If you think it desirable to make any changes in the report please do so. I also send a copy of the report of the Johns Hopkins Press, which I think I had better file with this report.

I am sorry not to be able to go to New York. I really think I should be a nervous wreck if I spent a week there in attendance upon the Association.

With kind regards,

Very truly yours,
HENRY M. HURD.

The report of Dr. Hurd is as follows:

BALTIMORE, May 17, 1917.

To The American Medico-Psychological Association.

GENTLEMEN: As Chairman of the Committee on the preparation and publication of *The Institutional Care of the Insane* I present herewith in behalf of the Committee a report covering the first three volumes.

I regret to say that the estimate made as to the size and expense of the work was an erroneous one, due principally to two reasons: First, the increased number of illustrations which were finally inserted because of a desire to present as nearly as possible a full representation of the state institutions, together with portraits of men who had been instrumental in promoting the care of the insane during the past three-quarters of a century, and second, the greatly increased size of the volumes over what was originally planned. Undoubtedly the amount of material could have been cut down, but it seemed to the Committee unwise to do so, in view of the fact that the histories of institutions in the different states gave original documents and details which if not printed at the present time might disappear wholly. In fact, in the course of investigations which were made it was found that in many states such documents had been destroyed and no satisfactory account could be given of the development of their institutions.

For these reasons the four volumes will contain upwards of about 2700 pages and 166 illustrations. There are at present a little more than 400 subscribers to the set. The edition numbers 800 copies. There has been received from subscribers to the work \$2948.67, and there is still due \$187.25, making a total of \$3135.92. The cost of publishing and distributing the first three volumes has been \$5629.57, and there is a deficit to date on the first three volumes of \$2664.53. I would ask the Association to make an appropriation of this amount to pay the indebtedness upon the first three volumes. Volume IV is now in the hands of the printers and will probably

be issued sometime during the month of June. I would also ask that the Council be given authority to pay the deficit on this volume, which cannot yet be determined but which will probably not exceed eight or nine hundred dollars.

There is no doubt but that eventually every copy of the book will be sold and the receipts from it will become an asset to the Association. Unquestionably the war conditions have interfered with its sale to a certain extent, especially in Canada. I believe that no medical association in this country has made a more worthy publication than this history, or one which will be more serviceable to the profession, both now and in the future.

In closing I desire to express my sincere thanks for the patience which has been extended to the Committee in view of the slowness of the completion of the work. It has been an onerous task and has required a large amount of personal effort on the part of all who have been engaged in its preparation.

Very respectfully submitted on behalf of the Committee,

HENRY M. HURD,
Chairman.

I suppose this report will go, in its regular course, to the Council, but I should like to say especially with reference to Dr. Hurd's last sentence, "It has been an onerous task," etc., that while there is no disposition on my part to belittle the performances of Dr. Hurd's associates and sub-editors, I can speak for myself, as a sort of scout-master for the New England states, and avow that the kind of work that I have done has been in quantity and quality almost negligible. But I think all of the co-editors will agree with me when I say that the work done by Dr. Hurd has been onerous, unrelenting and herculean. Neither is it too much to say that the disability under which our dear friend now labors, namely, that of detachment of the retina, with complete blindness in one eye and exceedingly poor vision in the other, is due in large measure to the unceasing work which for many years he has performed for this Association and especially on this *magnum opus* of his. I would, therefore, suggest, Mr. President, that somebody other than myself make a motion that this Association direct the Secretary to send an appropriate telegram to Dr. Hurd, expressing its sincere regret, its affection, and its great sympathy with him in his present ill health and disability. I am sure that such a message would please Dr. Hurd very much. It would also please him, no doubt, to hear in that same telegram what disposition has been made of this report.

DR. S. E. SMITH.—Mr. President, in view of the suggestion of Dr. Blumer I wish to move that the Association direct the Secretary to send the telegram of sympathy and appreciation to Dr. Hurd and to assure him that the deficit referred to has been taken care of.

The motion of Dr. Smith was seconded by Dr. Brush, who said:

When I first called on Dr. Hurd, following his trouble with his vision, I found him worrying more apparently about the final proof of the third

volume of the work, which he has so well edited, than about his impaired vision.

Needless to say that was taken care of, the proofs were read and the volume was put through the press. I may say that when the final proofs were read they showed the very great and painstaking care the doctor had given to that volume, as indeed he had given to the other two. There were practically no corrections to be made in the final proof. The preparation of these four volumes for the press has been a labor of love on his part but it has been a labor which I do not think anybody in this room can appreciate. I am very glad we are to give him assurances as to this matter by a telegram and I think also there should be a letter from the President of the Association, expressing appreciation of what Dr. Hurd has done for this organization. I think you will be glad to know that the doctor's right eye of which he has had practically no use for a long time for reading or writing permits him to get about with a fair degree of comfort. He did not want to come here to strange surroundings, in a strange hotel, but he goes down town in the street cars sometimes, gets about and attends society meetings and remains his old cheerful self, ready as always for any service he can perform.

The motion of Dr. Smith was then unanimously adopted.

DR. BLUMER.—Mr. President, may I have one more word on this matter of sending telegrams. I was informed on coming into this room this morning that Dr. John B. Chapin, of Canandaigua, has been a member of this Association for 50 years. It seems to me it would be an extremely gracious thing if the Secretary should also be requested to send our venerable member the congratulations of the Association. Dr. Chapin is the dean of our Association, the oldest member, although the second oldest, I imagine, in point of age since Dr. Smith leads him by several years.

The late Bishop Bloomfield once, late in life, visited the University Church of Cambridge and there recognized a verger whom he remembered as of his undergraduate days. The bishop said in his surprise that he was glad to see him looking so well at such an advanced age, whereupon the old man answered, "Oh, yes, my lord, I have heard every sermon that has been preached in this church for 50 years and, thank God, I am a Christian still."

I think we ought to let Dr. Chapin know that we are all grateful for the kind of Christianity he has displayed during his half-century of membership notwithstanding the temptations by which he must have been beset, like the verger of Cambridge, to depart from his standards of faith and conduct.

The motion of Dr. Blumer was seconded and adopted unanimously.

DR. C. B. BURR.—Mr. President, in order to carry into effect the suggestion of Dr. White, which appealed to me very strongly I would move

that an assessment of \$5.00 be made upon every member present and collected immediately for the purpose of entertainment at this meeting, in order that the money to which reference has been made can be diverted as Dr. White suggested to the payment of the expenses of the special committee to be appointed on Dr. Brush's motion.

DR. CARLOS MACDONALD.—Mr. President, I beg to say that the Committee on Arrangements does not feel authorized or warranted in diverting any of this money for the purpose suggested. The committee holds it must be applied to the purposes for which it was subscribed, especially as the contributors are not members of the Association.

THE PRESIDENT.—I would like to say that as President, I signed with Dr. Mabon, who was the original Chairman of the Committee of Arrangements an express stipulation—practically an agreement—with every subscriber to this fund as to the nature of the use to which the funds were to be put. The subscriptions were made for a definite purpose and Chairman MacDonald, who succeeded Dr. Mabon having incurred such obligations, must meet them out of these funds.

DR. BLUMER.—Mr. President, I would amend Dr. Burr's motion that the sum be \$1.00 and that the total sum be filled in where the blank occurs in Dr. Brush's resolution.

DR. WOODSON.—Mr. President, do our rules permit us to make assessments or do we do it by vote?

DR. BRUSH.—Mr. President, would it not be better to lay the whole matter over until the committee called for by Dr. Meyer's resolution is appointed?

DR. BURR.—Mr. President, I withdraw my motion.

THE PRESIDENT.—A committee should be appointed at this time to report to-morrow on Dr. Brush's resolution. I would appoint, as such committee, Dr. Brush, Dr. Meyer, Dr. Blumer, Dr. Carlos F. MacDonald and Dr. Work.

DR. BRUSH.—Mr. President, will you be kind enough to name Dr. Meyer first as he is the one who will take up the matter which I have brought to the attention of the Association.

THE PRESIDENT.—I will be glad to make the change that you suggest.

DR. WORK.—Because of the very great distance at which I live from my associates on this committee, I would like to ask that another name be substituted for mine.

No action was taken on Dr. Work's suggestion.

DR. S. E. SMITH.—Mr. President, we have not taken care of the report read by Dr. Blumer or at least I don't recall that any action has been taken on it. If that is the case I move that it be referred to the Council.

The motion of Dr. Smith was duly seconded and adopted.

THE PRESIDENT.—It appears to be proper under this order of business to have reports from some committees. In the first place a report that was made by Dr. Copp was laid on the table to be taken up this morning; that is, the report of the Committee on Statistics. I do not know that the Association is prepared to adopt the report but it was expected that after having 24 hours to think it over the Association could properly discuss it this morning and decide whether to take action now or defer it for a later session. I would, therefore, ask if there is anything further to be said or any action taken on the report submitted yesterday by Dr. Copp, entitled "The Statistical Report."

DR. COPP.—Mr. President, the committee has expressed itself in the report which you have before you, therefore no remarks from the committee are necessary at this time. It is possible that it would be proper to emphasize what the committee deems the essentials of the report which should be considered for immediate action, if any action is deemed advisable. The recommendation as to the classification of mental diseases and the uniform tables for statistical data should, we think, be adopted. Then it would be necessary to provide: first, for the promotion of the adoption of this classification by the different states; and, second, for its periodical revision by a standing committee.

This standing committee should represent the best psychiatric knowledge and be composed of the men doing the best, scientific, medical work in the institutions. It should be continuous in its study of the subject and by its recommendations from time to time present the most up-to-date statistical forms.

The recommendation that a statistical bureau be established at a considerable expense by the Association is not essential and, perhaps, not advisable at this time.

THE PRESIDENT.—Have you a definite suggestion that you would make?

DR. COPP.—We would like to have come up the question of adopting the tables as recommended or, if not adopted, such definite suggestions as will make them acceptable as a starting point.

DR. BRIGGS.—Mr. President, I would like to speak of the necessity for immediate action. As a member of the National Committee preparing neuropsychiatric units for the United States Government we are endeavoring to have a uniform set of records used in all these units. Dr. Salmon's desire was that blanks be immediately formulated and made uniform so that at the end of the war there would be one uniform set of records and a complete psychiatric history of the war such as there never had been after any other war. If a uniform classification and blanks for statistics could be adopted at this time it would be of extreme value at the end of the war in writing up the history.

DR. HUTCHINGS.—Mr. President, as I am neither a member of the committee nor a resident of any of the states represented on this committee at the present time, I feel that it would be appropriate for me to urge the

adoption of this report. Personally I favor it very greatly. It has been prepared after full consideration and it is entirely practical and ought to be used throughout the institutions in this country and it has been suggested that it be used also in the psychiatric units now being formed under the auspices of the National Committee for Mental Hygiene. So I will move that the report as presented by Dr. Copp be adopted so far as the tables and classification are concerned.

DR. WOODSON.—Mr. President, I merely want to suggest that the attendance at the time the report was read was very small, and to express my opinion that a special time should be set for the consideration of this report so that the members may know what the tables consist of. I would suggest that the matter be deferred until some time to-morrow. If the Chairman will tell me what hour it will be convenient for the Association to consider it I will make a motion to defer it until that time.

DR. BRUSH.—The tables have been ready, they have been distributed and have been in the hands of every member of the Association for at least two weeks.

DR. WOODSON.—Mr. President, I have not seen them myself and I move that the subject be deferred until to-morrow.

DR. BURGESS.—Mr. President, allow me to say a word. I was late in entering. While the classification may be alright, to a practical man it is too complicated and neither I nor my assistants have time sufficient to fill these forms out if they are to be accurately filled. I think the same subject was gone over several years ago in the British Association and also in France, and they thought there that the general trend was to make such classifications too complicated. I read the one now suggested very carefully two or three times and I did not care for it much. In fact I'll be hanged if I could simmer it down to a common-sense basis.

DR. COPP.—We must bear in mind that no one in this classification can represent his individual opinion. The report itself does not represent the views of every individual on the committee, but it was an effort to present a practicable basis of classification. It will come before you, not as a compulsory but as a voluntary matter.

The whole matter is within your control. It is not a crystallized proposition. It is to be plastic, modified from time to time on recommendation of the standing committee. It is important that the United States Census Bureau, the Public Health Departments, state and national, and various associations should have some expression of opinion in this matter which is authoritative from this representative Association.

The President put Dr. Woodson's motion to defer consideration of the subject until Thursday afternoon. The motion was lost.

The motion offered by Dr. Hutchings was adopted unanimously.

DR. BANCROFT.—Mr. President, in compliance with the suggestions of Dr. Copp with regard to the adoption of this report I understand that it is

desired that there should be a constant committee, and if it is in order at this time to make that motion I should like to move that a standing committee on statistics, to be composed of seven members, be appointed by the President, to promote the general adoption of the Association's classification of mental diseases and statistical tables and from time to time to recommend to the Association such revisions as may be necessary.

Dr. Bancroft's motion was seconded and adopted unanimously.

THE PRESIDENT.—I take it that the incoming President will appoint that committee.

The next order of business will be the presentation of the report of the Committee on Diversional Occupation, Dr. Hutchings, Chairman.

DR. HUTCHINGS.—Mr. President, if it is agreeable, I would like to defer the reading of the report of this committee until to-morrow, as the exhibits are now being judged and I will be in a better position to report to-morrow morning.

The President then called for the report of the Committee on Pathological Investigation, Dr. E. E. Southard, Chairman.

DR. SOUTHARD.—Mr. President, let me speak of one matter before the report is presented. I hope that the Committee on Resolutions may deem it desirable to request the Association at a future meeting to adopt one or all of these resolutions—if they are proper for adoption.

To the American Medico-Psychological Association:

As Chairman of the Committee on Pathological Investigation, I wish to submit the following report:

This standing committee is composed of the following members: E. E. Southard, M. D., Boston, Mass., Chairman; Adolf Meyer, M. D., Baltimore, Md.; August Hoch, M. D., New York, N. Y.

The work of the Committee on Pathological Investigation has been interrupted by travel and illness of members to an unforeseen extent, and for the rest, preparedness questions relative to the war have put the matter of pathological investigation, as such, rather upon one side. However, all members of the committee have been engaged in various official and unofficial ways in work indirectly related to the work of the Committee on Pathological Investigation.

In the absence of a set report, the Chairman wishes to offer the following suggestions, which he believes conform to the ideas of the other members of the Committee with whom he has conversed from time to time on this topic, and the Chairman of the committee will offer as motions for possible adoption by the Association the following:

1. The Standing Committee of the Association on Pathological Investigation shall be empowered to appoint sub-committees from members of the Association relative to various aspects of investigation.

2. To the above end the committee shall be directed to communicate with a portion of all of the Association to secure voluntary suggestions for topics and membership of such sub-committees.

3. That it is the opinion of the Association that pathological investigation and research in both structural and functional lines shall be encouraged in the institutions.

4. That to this end it be regarded as the opinion of the Association that pathological laboratories equipped for routine hygienic work in the institutions for the performance of autopsies and for clinicopathology form an indispensable portion of the equipment of large district hospitals for the insane.

5. And that it be regarded as the opinion of the Association that where such laboratory facilities are not available, within the walls of the institution, they shall be sought from nearby hospitals, medical schools or other institutions possessing such facilities.

6. That it be regarded as the opinion of the Association that in the absence of unusual circumstances, large district hospitals, such as those having 1500 beds or more, shall employ pathologists relieved from routine duties in connection with clinical work.

7. That the Association views with approval the connection of officers of state institutions with educational institutions, particularly those training medical students.

Respectfully submitted,
E. E. SOUTHARD, *Chairman*.

Dr. Southard also presented the report of the Committee on Scientific Exhibits, as follows:

To the American Medico-Psychological Association:

As Chairman of the Committee on Scientific Exhibit, I wish to make the following report:

The members of this standing committee are as follows: E. E. Southard, M. D., Boston, Mass., Chairman; Arthur W. Hurd, M. D., Buffalo, N. Y.; Albert M. Barrett, M. D., Ann Arbor, Mich.; Adolf Meyer, M. D., Baltimore, Md.; H. Douglas Singer, M. D., Kankakee, Ill.; H. W. Mitchell, M. D., Warren, Pa.

The engrossing interests of the majority of the members of the committee in connection with preparedness for larger matters have permitted only modest beginnings in the matter of a scientific exhibit. Exhibits have been sent from the New York Psychiatric Institute; the Psychopathic Hospital, Boston; the Massachusetts Commission on Mental Diseases; the Psychopathic Institute, Kankakee, Ill.; the Massachusetts School for the Feeble-Minded, Waverley; the Monson State Hospital, Mass.; the Trenton State Hospital, New Jersey; the Life Extension Institute (courtesy of Professor Irving Fisher); and the Eugenics Record Office, Cold Spring Harbor, N. Y. (courtesy of Director C. B. Davenport).

The Chairman of the committee feels that the committee has learned the difficulties of its task, at least to some extent. Next year and in future years the committee hopes to extend and develop the exhibits so that all aspects of scientific work, whether fundamental and theoretical or related to the practical matters of diagnosis and treatment, will be properly represented.

Respectfully submitted for the committee,
E. E. SOUTHARD, *Chairman*.

The President announced that the reports would be referred to the Committee on Resolutions.

The report submitted by Dr. Southard as Chairman of the Committee on Pathological Investigation was then adopted.

The President announced as the next report that of the Committee on Mental Hygiene, Dr. William A. White, Chairman.

DR. WHITE.—Mr. Chairman, this is rather a lengthy report and consists of details of the various activities in mental hygiene through the past year throughout the country. I suggest that as it will be printed in our transactions, I would be glad to be relieved of the duty of reading it unless you insist; and that it be read by title.

The President announced that the request of Dr. White would be granted.

REPORT OF COMMITTEE ON MENTAL HYGIENE.

General Scope and Activities.—Although the specific objects of mental hygiene are to prevent mental diseases and mental defect and to promote mental health, the term is being applied in this country to a wide range of activities having to do with the care and management of mental diseases and mental deficiency and to the application of psychiatric and psychological knowledge to many social, industrial and economic problems. This means that mental medicine is attempting to formulate a program for prophylactic activities.

Increased Interest in Mental Hygiene.—Recognition of the part of the federal government in work in mental hygiene led to the introduction of a bill establishing a Division of Mental Hygiene, under an assistant surgeon general, in the United States Public Health Service. This bill (S. 2215; H. R. 721) was passed by the House of Representatives and reported favorably by the Senate Committee on Public Health and National Quarantine. Sections on mental hygiene have been formed in the National Conference of Charities and Corrections and the American Medico-Psychological Association. A session of the 1916 meeting of the American Public Health Association was devoted to mental hygiene. A quarterly magazine entitled *Mental Hygiene* has been projected by the National Committee for Mental Hygiene. The first number was published in January, 1917. The extension of interest in this new division of preventive medicine has already created a demand for

instruction in the subject and several universities are offering courses for those who desire to work in this field. It is planned to include a mental hygiene division in the Institute of Hygiene to be established at The Johns Hopkins University.

Work of Organizations.—The National Committee for Mental Hygiene has widened the scope of its work and with increased resources. New state societies have been formed in Indiana, Missouri, Ohio, Rhode Island and Tennessee. The second Convention of Societies for Mental Hygiene, held in New Orleans in April, was attended by representatives of ten of the thirteen societies established up to that time.

The Committee on Provision for the Feeble-Minded has devoted itself chiefly to popular education on a wide scale and to securing the appointment of official state commissions to study feeble-mindedness in its various relations and to recommend to their legislatures specific measures for dealing with this great problem.

Provisions for Treatment of Mental Diseases.—State surveys of the care and treatment of mental diseases have been carried on by the National Committee for Mental Hygiene during the year in California, Colorado, Connecticut, Georgia and Louisiana. The facilities for dealing with mental diseases are also being carefully studied in Chicago and New York City. These surveys which are undertaken at the request of governors, state boards of charities or of unofficial organizations enabled the committee to make recommendations of the greatest value. Although conditions of unbelievable neglect have been found in certain places, every effort is made to emphasize the constructive features of such surveys. An important phase of the treatment of mental diseases is the extension of the work of hospitals for the insane in the communities which they serve. By means of out-patient departments, or mental clinics as they are called, social service, after-care and popular education in the districts from which such hospitals receive patients, they are becoming in many states centers for practical and effective work in mental hygiene. At these mental clinics any case presenting a mental problem, whether in diagnosis, treatment or social management, receives the careful attention of qualified specialists.

An addition to the few centers existing for research into the causes and nature of mental diseases has been made possible during the year by the appropriation of \$20,000 annually by the Sprague Foundation for the study of dementia præcox, an unrecoverable type of mental disease from which more than 60 per cent of the patients in public institutions for the insane are suffering. It is believed that there is no larger group of persons in this country afflicted with a single form of serious disease.

A number of important changes have been made in laws dealing with mental disorders. For the most part, the new legislation shows a tendency to aid in completing the hospitalization of institutions for the insane and to provide simpler and less formal methods of commitment. Voluntary admissions have increased so greatly since this means of securing treatment was first provided, that, in several institutions it is the method most frequently employed. There are strong grounds for believing that, before long,

any other means of securing treatment will be the exception instead of the rule. The growth in the extent and cost of institutional care of mental diseases has led to a critical examination of methods of general control and administration. A significant change is the substitution of a State Board of Mental Diseases in Massachusetts for the State Board of Insanity. The tendency toward the formation of central boards of control has been checked by the disclosure of some evils which seem to accompany this system of administration.

The immigration bill, which passed the House of Representatives in 1915 and the Senate in December, 1916, contains provisions for the mental examination of all arriving immigrants by medical officers especially trained in psychiatry and requires that such officers shall have proper facilities for their work. It also adds to the excludable classes of aliens persons with several types of abnormal mental conditions not previously specified in the law.

The Bureau of Social Hygiene has established a psychopathic hospital in connection with the Reformatory for Women at Bedford, New York. While this was the only addition made to the number of psychopathic hospitals during the year, active efforts to secure such facilities are under way in New York City, San Francisco, Detroit, New Orleans, Galveston, Nashville and in connection with the University of Iowa.

There have been no notable advances in the treatment of mental diseases during the year except in dealing with general paresis, a very prevalent and uniformly fatal disorder. Stimulated by the discovery by Noguchi and Moore of the living organisms of syphilis in the brains of paretics, efforts have been made to combat this disease by the intraspinal and intracranial introduction of salvarsanized serum. Although it seems possible by this means materially to alter the progress of the disease, there is yet insufficient proof that cures or permanent arrests can be secured. Occupation and re-education have received especial attention in other forms of mental disease. It is becoming the general belief that mental diseases may be prevented or greatly modified by early treatment and so the detection and special management of psychopathic conditions in children is receiving a great amount of attention and facilities for carrying on this work in connection with the schools are being very strongly advocated.

Provisions for Mental Deficiency.—The great increase in popular interest in feeble-mindedness has continued. The state commissions appointed in Arkansas, Florida and Indiana have continued their work. New commissions have been appointed in Delaware, Kentucky and Utah. While institutional provision for the feeble-minded is still very inadequate, according to a census made by the National Committee for Mental Hygiene in June, 1916, there were 34,186 inmates in public institutions for the feeble-minded and epileptic in this country, an increase of 44.4 per cent since 1910. No other group of persons for whom institutional care is provided in the United States has increased at so rapid a rate, but even with the remarkable extension of interest in mental deficiency during recent years the percentage of increase from 1910 to 1916 is less than in the period 1904-1910. There

has been general approval of the formation of colonies for adult male feeble-minded persons in good physical condition. Such colonies, when connected with "parent" institutions, can be made self-supporting and seem to offer a most hopeful means of providing for a greatly increased number of cases at a minimum expense to the state. The kind of provision most suitable for defective delinquents of both sexes has received much study but no state has yet made provision for this class.

A bill to provide an institution for the mentally defective in the District of Columbia resulted from the findings of the survey made by the United States Children's Bureau in 1915, but failed of passage. As existing legislation has been found inadequate to carry on much of the work planned on behalf of the feeble-minded, attempts are being made in various states to frame suitable laws for the commitment, registration, supervision, guardianship and institutional care of defectives. A comprehensive law was enacted in Virginia as a result of the report made by the Virginia Commission in 1915.

The educational authorities are awakening to their responsibilities for the care of mentally defective school children. Special classes for such children are being formed throughout the country. The demand for trained teachers in these classes has led to the establishment of special courses of instruction in a number of colleges and normal schools.

Surveys of Mental Deficiency.—During the year an important survey was completed in Nassau County, New York, to determine the social significance and the approximate prevalence of mental deficiency in a restricted area. In this survey, which was carried on by the National Committee for Mental Hygiene under a special appropriation by the Rockefeller Foundation, a careful estimate was made of the mental condition of all individuals in three areas selected for intensive study. In these areas, the population of which is about 5000, approximately 3 per cent of the total number were found to be afflicted at the time or to have suffered previously with some form of mental disorder including psychoses (insanity), all types of mental deficiency, epilepsy, constitutional psychopathic states and inebriety. About 4000 other persons in the county were studied, these being selected from the groups in which abnormal mental conditions seemed most likely to be found. The mass of data bearing upon the relation of abnormal mental states to delinquency, dependency and educational problems collected in this survey is without parallel and will be of the greatest value in formulating plans for dealing with mental deficiency. The United States Public Health Service has continued its very important school hygiene surveys in Arkansas, Delaware, Indiana and Maryland, and has taken an active part in the survey in Nassau County. The mental examinations in such surveys are made by medical officers with special training in psychiatry and they provide trustworthy data as to the prevalence of abnormal mental conditions in the community.

Mental Factors in Crime and Delinquency.—An unusual amount of attention has been paid during the year to the relation of mental factors in

crime and delinquency. The pioneer work done by the Juvenile Psychopathic Institute in Chicago has resulted in the establishment of clinics in connection with children's courts in a number of cities.

The National Committee for Mental Hygiene, through a special appropriation by the Rockefeller Foundation, established a psychiatric clinic at Sing Sing Prison on August 1, 1916. The establishment of this clinic constitutes a part of the general plan for the conversion of Sing Sing into a reception prison where each prisoner received will be given a most careful mental and physical study. The clinic has proved not only a valuable means of studying the psychopathology of crime but has shown that the results of such studies can be applied very usefully to the conduct of prison affairs. Efforts are being made to establish clinics with similar aims in Connecticut, Massachusetts and New Jersey. Other evidences of the desire to study crime and criminals from a psychiatric viewpoint are the appointment of a resident psychiatrist in the penitentiary and work-house at Blackwell's Island, New York City, the reorganization of the Police Psychopathic Laboratory in New York City with four psychiatrists, one psychologist and two social workers devoting their whole time to the task of studying the mental condition of persons arrested in that city, and the opening of a psychopathic hospital in connection with the Reformatory for Women at Bedford, New York, for the study and treatment of a selected group of psychopathic cases among women delinquents.

Inebriety.—The mental factors in inebriety are now receiving much more general recognition than heretofore. Effective cooperation between those engaged in the study of the inebriate, the insane and the feeble-minded promises valuable additions to our knowledge of the underlying causes of inebriety and its more successful management. The growth of heroin addiction among young persons is arousing much concern as it represents a new and dangerous form of drug inebriety. A step toward the control of this phase has been taken in the elimination of this drug from the medical supply tables of the United States Army, Navy and Marine Hospital Service and the introduction in Congress of a bill to prohibit entirely its manufacture, importation or sale. The very slight therapeutic value of heroin makes such a step possible.

Military Hygiene.—Perhaps the most important of the recent activities of the National Committee for Mental Hygiene has been the appointment of a Committee for Furnishing Hospital Units for Nervous and Mental Disorders to the United States Government. This committee has presented a plan for the building, organization and equipment of a psychiatric unit to be attached to the army and navy base hospitals, and both branches of the military establishment have recognized the virtues of this plan so far as to practically hand over the work of organizing these units to the National Committee, with a tacit understanding that the personnel recommended for manning these several units will be accepted. The committee undertakes to secure the funds for paying for the equipment of these units, which will be of two varieties as to size, the larger size accommodating from 115 to 150 beds and the smaller size approximately for 30 beds. The equipment of

the larger unit will cost in the neighborhood of \$10,000 and for the smaller unit approximately half that sum. At the present writing arrangements have been completed for establishing and equipping the first unit in connection with the Marine Hospital at Staten Island, which will be manned by medical officer of the Public Health Service who have had special psychiatric training. A plan is being formulated for handling mental and nervous cases, particularly for their disposal from the base hospitals. In order that as full and complete knowledge as possible might be obtained as to the methods that were of value and as to the new conditions which might be met in the realm of neurology and psychiatry and which would require methods of treatment with which we were not familiar, the National Committee has undertaken to send Dr. Salmon to France and England to make a rapid, intensive survey of the situation.

Other Problems.—It is apparent from the activities which have been described that mental factors are receiving an entirely new degree of attention in problems other than those which have previously constituted the special sphere of psychiatry and psychology. Tentative efforts have been made to find practical means of bringing the resources of these sciences to bear upon the problems of education, vocational guidance and certain phases of industrial work. Great impetus has been given these efforts by the new knowledge regarding mental mechanisms which recent advances in the methods of psychological analysis have provided.

It can be said conservatively that the progress in mental hygiene during the year justifies the belief that a more fundamental approach to social problems has been found than any which has heretofore existed.

Respectfully submitted,

WM. A. WHITE, *Chairman*,

WM. L. RUSSELL,

THOS. W. SALMON.

The President announced as the next order the report of the Committee on Revision of Propositions, Dr. Owen Copp, Chairman.

Dr. Copp suggested that his report be deferred until Thursday morning.

The President announced as the next order report of the Committee on Nominations, of which Dr. Carlos F. MacDonald is President.

DR. MACDONALD.—Mr. President and Gentlemen, the Nominating Committee would respectfully report the following nominations:

For President, Dr. James V. Anglin, of St. Johns, New Brunswick.

For Vice-President, Dr. E. E. Southard, of Boston, Mass.

For Secretary-Treasurer, Dr. Henry C. Eyman, of Massillon, Ohio.

For Members of the Council for three years, Dr. Charles G. Wagner, of Binghamton, N. Y.; Dr. W. H. Hancker, of Farnhurst, Del.; Dr. Herman Ostrander, of Kalamazoo, Mich.; Dr. Sanger Brown, of Kenilworth, Ill.

Auditor for two years, Dr. Robert L. Richards, of California, to succeed Dr. G. H. Moody, deceased.

Auditor for three years, Dr. Wm. L. Russell, of White Plains, N. Y.

(Signed) CARLOS F. MACDONALD,

H. W. MITCHELL,

EDWARD N. BRUSH,

Nominating Committee.

DR. WORK.—Mr. President, we have received the report of the Nominating Committee and I move that the Secretary be instructed to cast one ballot for the Association for the men named for the respective offices for the coming year.

The motion was duly seconded.

DR. WOODSON.—Mr. Chairman, why not adopt the report first?

DR. WORK.—I will change the motion to read to adopt the report first and then desire to have the motion to include the recommendation that the Secretary cast one ballot in favor of the election of the members nominated for the respective offices.

The report of the committee was then adopted and the respective nominees were declared elected.

The President called for the report of the auditors on the accounts of the Treasurer.

Dr. Heyman reported from the Auditing Committee as follows:

NEW YORK, May 29, 1917.

I hereby certify that I have examined the books and vouchers submitted by the Secretary and Treasurer and compared the accounts with his report submitted to the Association and find that the same is correct, as submitted.

M. B. HEYMAN, *Auditor.*

The President announced that he had selected as members of the Committee on Resolutions, Drs. Work, Hill, of Maryland; and May, of Massachusetts.

DR. MACDONALD.—Mr. President, before you proceed to the literary program may I renew the announcement in regard to the excursion this afternoon. The Manhattan State Hospital boat, the *Wanderer*, will leave the pier at the 34th Street dock at 1.30 p. m. Luncheon will be served at once so that members will not need to look after this feature; and we expect to return to the hotel at 5 o'clock.

The President announced that the first paper to be read was by Dr. William A. White, "The Problems of the Individual Patient in Large Hospitals."

There was no discussion of this paper.

Dr. E. E. Southard then read his paper entitled, "Further Work on the Anatomy of Feeble-Mindedness, and Especially Brain and Gland Studies."

There being no discussion of Dr. Southard's paper, the President announced as the next paper, "Does the Paretic Gold-Sol Curve in Psychiatric Cases Always Indicate Syphilis of the Nervous System?" This paper was illustrated by charts. At the close of Dr. Weston's paper the President announced that in order to reach the boat landing in time to start the excursion on steamship *Wanderer*, the remaining papers on the program would be postponed. He, therefore, declared the session at an end and announced that the evening session would be devoted as usual to the annual address.

A very large number of the delegates and their families as well as visiting strangers enjoyed the boat ride on the *Wanderer*, the route being down the East River to New York Bay and up the North River to Grant's Tomb and return.

EVENING SESSION.

The President called the Association to order at 8.30 p. m. In announcing that the annual address would be delivered by Professor Edwin Grant Conklin, of Princeton University, the President said:

Ladies and Gentlemen: During many of the years of the life of this Association, it has been a custom to set aside Wednesday evening as the occasion for a notable feature. That feature has regularly been an address by some distinguished personage, usually a professional man of high standing, and sometimes in the medical profession and at other times in other branches of learning.

A year ago at New Orleans we listened to an exceedingly fine address by Professor Pierce Butler, Professor of English Literature in the Tulane University on "The Mad-Folk of Shakespeare's Time," and that address was greatly enjoyed by all who heard it.

Two years ago Professor Douglas Freeman, of Richmand, Va., delivered an address at Old Point Comfort on "Publicity and the Public Mind," and every one who was there will remember what a splendid address we had the

pleasure of hearing. Three years ago at Baltimore, Professor Lewellys F. Barker, of The Johns Hopkins University, addressed us on "Internal Medicine," and that splendid address was a milestone in our history. I might go further back and mention other notable addresses all of which have been of an exceedingly high character and by all of which we have been greatly honored in having them presented before our Association.

This evening we are promised an address which I have every reason to believe will rank with the best that we have heard heretofore, and which, if I mistake not, will establish a new level, a higher plane, than any that have preceded it. I have great pleasure in introducing Professor Edwin Grant Conklin, Professor of Biology in Princeton University, who will address us on "The Development of the Personality."

At the close of Professor Conklin's address, Dr. Brush said:

Mr. President, the close attention which this most eloquent address has received and the applause with which it has been greeted makes it a work of supererogation on my part to rise and propose for the speaker a vote of thanks from this audience. It has been my privilege to listen to many addresses; it has also been my privilege to hear many interesting topics treated by prophets. To you, sir, I wish to accord the crown, the title of true prophet, for you prophesied, Mr. President, that the interesting and notable addresses which had been delivered on previous occasions would be surpassed by the one we were to hear to-night. It is, of course, not proper for me at this time to draw invidious comparisons between addresses delivered before this Association. It is particularly so in view of the discussions that have occurred during some of our recent sessions. I wish that the gentleman who has spoken to us to-night could have taken part in, or at least been present at, the discussion which occurred over the paper by Dr. Burr. He has set before us an example; he has lighted a torch, he has sounded a warning and he has given us a motto. He has told us to remember that an all-wise Providence is a much wiser and safer power to trust in than any propaganda. I propose, therefore, Mr. President, that the thanks of this body be given to the gentleman who has so eloquently addressed us and I suggest that you call for a rising vote.

THE PRESIDENT.—I would like to say that the prediction I made was no casual phrase coined for the occasion. It grew out of the fact that I had heard a great deal about Professor Conklin before he came here and I believed that the address would be up to the standard which Dr. Brush has so fittingly characterized and for which I am sure you will all be glad to rise as an expression of your appreciation and your thanks.

The Association then adjourned.

THURSDAY, MAY 31, 1917.

MORNING SESSION.

The President announced the receipt of a telegram from Dr. Henry M. Hurd expressing his appreciation and gratitude for the action that was taken by the Association during the Wednesday's session.

The Secretary then read a report of the Council Meeting held May 31, 1917.

REPORT OF THE COUNCIL, MAY 31, 1917.

The Council voted to recommend to the Association that the Treasurer be authorized to extend to Professor Edwin Grant Conklin an honorarium of \$50 to cover his expenses in attending the meeting of the Association at which he delivered the annual address on May 30.

The Council has fixed tentatively the City of Chicago as the place of the next meeting of the Association subject to the approval of the Association; it being agreed that the Council may change to some other point if conditions should arise during the course of the year justifying such action.

The Council recommends that the annual dues of members of the Association for the coming year be fixed at the same rates as last year, viz. \$5.00 for active members, \$2.00 for associate members.

By the Council,

H. C. EYMAN, *Secretary*.

THE PRESIDENT.—I may say in regard to the meeting in Chicago that the feeling of the Council was that the selection should be tentative. Conditions may arise that may require change of place before next year.

On motion duly seconded, the report of the Council was accepted and adopted.

THE PRESIDENT.—We had presented to the Association yesterday morning four applications for associate membership. These names are now before you for election:

Karl Murdock Bowman, M. D., White Plains, N. Y.; Charles I. Lambert, M. D., White Plains, N. Y.; Wm. W. Eichelberger, M. D., Harrisburg, Pa.; Donald R. Gilfillan, M. D., Worcester, Mass.

DR. WOODSON.—Mr. President, I move that the Secretary be authorized to cast one affirmative vote to represent the Association upon these applications for associate membership.

Dr. Woodson's motion was seconded and adopted unanimously.

THE PRESIDENT.—We have two or three matters in the way of committee reports to consider but before we proceed to them I will ask Dr. Pearce Bailey, Chairman of the War Committee of the National Committee for Mental Hygiene, to advise us in regard to certain matters which he has in mind.

DR. BAILEY.—Mr. President and Gentlemen: Although I am not a member of this Association, I appreciate very much the opportunity of appearing here to-day to tell you what our committee has done in this present war emergency.

Sometime ago, last March, two or three of us went down to see General Gorgas, surgeon general of the army, and talked over with him the general question of the care of the nervous and insane which would come up in the event of war. He seemed interested in the proposition and asked us to look over the border camps on the Rio Grande. As the result of that trip we came back with recommendations to General Gorgas to assemble some means of caring for nervous and mental cases in the base hospitals of the army. He accepted that proposition and then we reported back to the National Committee for Mental Hygiene and Dr. Barker, the president of our committee, appointed a special committee "On Furnishing Hospital Units for Nervous and Mental Disorders to the United States Government." He appointed on that committee a number of men—as many as he could without making it too bulky—alienists and neurologists from the different parts of the country. We are now engaged in getting commissioned the medical personnel and enlisting the nurses, attendants and stenographers. The authorization we have from Washington, from the surgeons general of the army and navy is, I think, a fine one, and I think they are prepared to be advised in all matters concerning the two services and also to accept the nominations we make for these special classes of men. They have, of course, alienists and neurologists in both services but those men are occupied in active duties and I don't think that the surgeons general of the army or of the navy are inclined to assign them to this special work.

What we have done so far is to perfect the organization of the committee. In the first place, we have gotten reports as to the conditions in Canada, and the conditions in Canada are very similar to those in this country. Canada was called upon to increase its army from 4000 to 400,000 soldiers and they were also called upon to send a large block of their army abroad, which is the same situation, apparently, we are in. Canada had a certain advantage there because they had England to use as a base and all Canadians stopped there both on the way over and on the return home. The examinations leading up to the discharge of soldiers are also done there. In that respect, Canada is in a better situation than we would be in so far as this feature is concerned. The surgeon general of the navy has accepted a special psychiatric hospital which this committee is now building on Staten Island. This hospital will be personally administered by the Public Health Service, but the equipment is to be made by this committee. Dr. Salmon, who is the medical director of the National Committee for Mental Hygiene, is now in Europe studying all the lessons that are to be learned there in order that our organizations here may be made adequate.

The surgeon general of the army has called on us for thirty bed units for Europe. They are ready to go as far as plans can be effected; they will

go in conjunction with the base hospitals. I saw Surgeon General Braisted in Washington on Tuesday and he asked me then to undertake work which I think is of paramount importance. A splendid opportunity is offered at the Naval Training Station for the examination of recruits especially with regard to their temperamental qualities. The training stations receive 5000 new recruits a month. The men remain at the station for a month on probation and during that month can be found ineligible and discharged and the country can thus be relieved from any danger of liability for pension claims. The surgeon general has appointed a psychiatrist to Newport and one is now needed at Norfolk, one at Chicago and one at San Francisco. This committee would like to have the names of men for that service. It is a wonderful opportunity to demonstrate what psychiatry can do in picking out men suitable for military service.

For the purpose of—efficiency is getting to be a too much used word—but it seems to be quite important that this official war committee be recognized as the one which should communicate with the army and navy in regard to their needs and which should send the application for commissions to Washington. I think a great deal of the time of this committee could be utilized for that purpose. What the needs are, I don't think anyone is in a position to say, but the general idea at Washington is that they are preparing an enormous army for a war of two or three years duration and they seem to have in mind sending large forces—a million men—to Europe just as fast as they can get them there; and the government has also firmly made up its mind, I think, to send psychiatric units in connection with practically every base hospital. They will need a number of psychiatrists and neurologists in the army and navy in excess of anything that any one even considered at the outbreak of the war. In addition to the units which go abroad units will have to be placed in the concentration camps throughout the country and later, special psychiatric centers will be necessary in the care of returned soldiers. It is expected that probably 10 per cent of the forces in Europe will be returned as invalided soldiers and a very large proportion of these will have nervous affections of some kind requiring special care and attention. So the job that is ahead of us is enormous. Just what this committee does is as follows:

It gives information very promptly to men who wish to enter the service as medical officers as to how they will proceed to get their commissions. It arranges for their selected service; any one who goes in independently, even though he has a preference for neurological or psychiatric work, will probably have no opportunity to exercise it unless he gets on a special roster right away, and this committee will have charge of that official roster; so that men who send their names to us will have some assurance that they can go on with special work. The committee will probably be able to cooperate also with men who wish to decide as to foreign or domestic service. Many wish because of family, or age, or of financial condition, to serve in this country and this committee will sort those out; and those wishing to go abroad can go, as I hope there will be ample quantity for both home and foreign service. The same is true for state services.

Dr. Briggs, I believe, has a statement that he will read as to what Massachusetts has done toward organizing these psychiatric units in that state, and that same arrangement can be made for any state. A still more difficult proposition to arrange and one that I think we have now found a solution for is to get enlisted men assigned to this work. That must be arranged with the military officers of each department, but I think we can get the services of enlisted men who have had special experience in the care of nervous and mental cases.

We have standardized equipment for units and this will include hydrotherapeutic and electro therapeutic and diagnostic equipment. We are now working on the standardization of history plans so that the neurological and psychiatric services will come out of this war with data which will be invaluable for medical purposes in the future. This equipment varies, depending upon whether it is for foreign or domestic service. It is not possible to carry to Europe the elaborate hydrotherapeutic apparatus or the extra cabinets which we have put into units in this country. Some things are impossible. It is not possible now to guarantee what rank a man will have although I think due attention will be paid to his age and his qualifications and to his standing. But I don't think that anyone can now guarantee any man a special rank nor can anyone guarantee any assignment to any particular local post.

The committee is very much in need of the names of men who wish to be officers and the names of attendants who wish to go into the enlisted reserve corps. We have worked very hard at this matter for two months and the number whose papers are now filed is not very large. We need an enormous list of reserve men who can be called on in an emergency, and I hope that every one who is interested in this subject of neurology and psychiatry and especially you, members of this Association, will give us all the names of men who can serve in this capacity. (Applause.)

THE PRESIDENT.—Although our time is rather limited, Dr. Frankwood Williams, of New York, who is the acting medical director of the National Committee for Mental Hygiene will say a few words to us on this subject.

DR. WILLIAMS.—*Mr. President and Gentlemen:* Shortly after the conscription law was passed the attention of the committee was drawn to the fact that conscription would prove a serious matter in the state hospitals for the insane. We telegraphed the superintendents of the Massachusetts and New York state hospitals and found that from 27 to 75 per cent of the attendants in these hospitals—and these are representative of the hospitals in the country—were of conscription age and that the average would be over 50 per cent. We placed the matter before the Council of National Defense and the War Department, and a tentative scheme was outlined whereby men who are on duty in the state hospitals may be conscripted but if so they may be furloughed to their hospital and remain on furlough so long as they remain on duty. If for any reason they leave then the War Department is to be notified and the attendant is to be taken into the army. While all state hospitals are willing to make sacrifices and to "do

their bit" in the present great emergency—and by furnishing specially trained physicians and nurses to the psychiatric hospital units, they are doing "their bit"—still it is of the utmost importance that the hospitals be not depleted of their attendants. I would, therefore, suggest that a resolution which I shall read be adopted and a committee be appointed to discuss the matter with those in charge of the conscription.

WHEREAS, Over 50 per cent of the attendants on the wards of the state hospitals for the insane throughout the country are of conscription age, and

WHEREAS, the ranks of the attendants are already badly depleted and further depletion would seriously handicap, if not paralyze the proper care of the patients in these specialized hospitals, and thereby bring great suffering upon a people already under a heavy load, be it, therefore,

Resolved, that the seriousness of the situation be placed before the Council of National Defense and the Department of War and a plan arranged whereby attendants who may be conscripted may be relieved of service in the army so long as they remain at their posts of duty in the hospitals; be it further

Resolved, that the President of the Association appoint a committee of three to present the matter to the Council of National Defense and the War Department, said committee to report to the superintendents of the hospitals for the insane throughout the country the plan agreed to by the Department of War.

DR. BRUSH.—Mr. President, may I ask Dr. Williams if he will modify his first paragraph so as to include such hospitals as the Pennsylvania Hospital for the Insane, for example, making it read "State and incorporated hospitals."

DR. WILLIAMS.—I have no objection to that change.

Dr. Williams' resolutions were then seconded and adopted unanimously.

THE PRESIDENT.—I will appoint as such committee, Dr. Frankwood E. Williams, of New York; Dr. William A. White, of Washington, and Dr. L. Vernon Briggs, of Boston.

DR. HARRIS.—Mr. President, I have a resolution I would like to offer to the Association:

Resolved, That all ex-presidents, of the American Medico-Psychological Association, not already members of the Council are hereby authorized to sit as ex-officio members of the Council at any annual meeting at which they are present.

THE PRESIDENT.—This resolution is before the Association. I may say that we have at every meeting a few of the ex-presidents. Their advice would be of great help to the Association and I would be very pleased to have the Association consider the suggestion.

Dr. Harris' resolution was duly seconded and adopted unanimously.

THE PRESIDENT.—The next matter for consideration is the report of the committee in reference to the resolution offered yesterday by Dr. Brush, of which Dr. Meyer is Chairman.

Dr. Meyer submitted the following report, which was on motion duly seconded and adopted unanimously:

The report of the committee to consider the appeal of Dr. E. N. Brush for the cooperation of the American Medico-Psychological Association in the organization of psychiatric work in the present war. The committee appointed to consider the most timely and thoughtful recommendations of Dr. E. N. Brush that our Association put itself at the service of the country in the organization of the recruiting service, in the organization of base hospitals and through making provisions for hospital care for the mentally sick soldiers begs to recommend that we cooperate with the war committee of the National Committee for Mental Hygiene. It is moved that our Association urge that Dr. Wm. A. White be added as a member representing psychiatry to the Medical Advisory Committee of the Council of National Defense. Our committee suggests that the President of our Association appoint one member of the Association in each state to cooperate with the war committee of the National Committee for Mental Hygiene in the organization of the available forces and resources in their particular states.

(Signed) ADOLF MEYER, *Chairman*.
HUBERT WORK,
CARLOS F. MACDONALD,
G. ALDER BLUMER,
EDWARD N. BRUSH.

Dr. Woodson moved the adoption of the report.

The motion was duly seconded and the report was unanimously adopted.

DR. PEARCE BAILEY.—Mr. President, I neglected to state that as to the maximum requirements in the army and navy the regulations provide as to age that officers of the reserve corps must not be over 55 in the army or in the navy, 44.

DR. MEYER.—Mr. President, it will be noticed that the Medical Advisory Committee of the National Council of Defense had no representative in psychiatry; it therefore seemed very important to many of us to have that proviso in our resolutions, suggesting that a representative of this Association be added and this will account for the resolution or suggestion that Dr. William A. White be added as a member representing psychiatry in the Medical Advisory Committee of the Council of National Defense. It is perfectly obvious that the man who is present in Washington and who knows the situation so well, is the logical representative of our body in that very important organization.

THE PRESIDENT.—I believe Dr. Brush has some remarks to make in reference to the reimbursement of Dr. Henry M. Hurd for expenses incurred in the publication of the Institutional History of the Care of the Insane.

DR. BRUSH.—Mr. Chairman and Gentlemen, you are fairly well aware of the situation from the report made through Dr. Blumer. The cost of preparation and printing the three volumes already issued of the History of the Institutional Care of the Insane in the United States and Canada, as Dr. Hurd has stated in his report, was somewhat in excess of the estimated amount. The number of subscriptions was very much below that anticipated. So that the Association under whose auspices this history has been printed is met with the fact that for the three volumes already issued there is a deficit of about \$2600, that is, the cost of printing has been \$2600 in excess of the subscriptions. Only 400 subscribers have taken the work. The fourth volume is in press. The same number of subscribers for this volume is on the books. The cost of the fourth volume over the amount to be received would be \$900, so that it appears the whole deficit will be between \$3400 and \$3500. This must be met. It must be met because we are supposed to be decently honest, honest enough to pay our debts; but it primarily must be met in order to relieve Dr. Hurd of the natural anxiety of a man who has undertaken the work, contracted for the binding, printing and publication, and who is met by the fact that he will not be able to pay for the cost of the work from the subscriptions. Dr. Hurd and his associates undertook this work solely as agents of the Association but I am quite sure from my knowledge of Dr. Hurd that he feels it is in a way a personal responsibility; and from this I think we should as promptly as possible relieve him. I think anyone here present, a member of this Association who has not already personally subscribed for this very valuable work, should to-day leave with the Secretary, to be forwarded to the publishers, an order for a full set. I believe also that every superintendent here who has not subscribed for the volumes for his hospital library, should do that also. Many of the subscriptions that have come in have been for this, that or the other hospital, the bills to be paid by the hospital. But the superintendent should also own a set, and every assistant physician should own one. There are four or five hundred copies still in stock and if they could be disposed of, the situation would be relieved. I move you that a committee consisting of the incoming President, Secretary-Treasurer, and one other member be appointed to finance the deficit now outstanding and to cooperate with a committee which was appointed by the Council to assist Dr. Hurd in the disposal of the number of volumes remaining unsubscribed for.

DR. S. E. SMITH.—Mr. President, it is my understanding that the Council passed a resolution for the appointment of a committee to take charge of this subject and to dispose of the histories on hand, is that not correct?

THE PRESIDENT.—It is my understanding.

DR. SMITH.—If that is true, I don't see the need of anyone being added to the committee which was to consist of Dr. Brush, Dr. Hurd and Dr. Herring.

DR. BRUSH.—Mr. President, I don't think that the committee is given any authority to finance the matter. When we dispose of the volumes on hand we can relieve the treasury.

DR. SMITH.—The purpose of the appointment of that committee was to relieve the financial stress and to meet the deficit. The Council appropriated for the purpose \$3000 to take care of the deficit. I feel that a more definite statement should be made to the Association or to the Council concerning this matter.

The first statement we heard with relation to this deficit was that it was approximately \$2800, the next that it was approximately \$3000 and finally that it was \$3400. It is impossible to do business in that way. If we have a deficit let us know what it is and meet it. I feel that the committee selected by the Council is competent to handle this question. The Association is obligated and must meet it but let us have all the facts.

DR. BRUSH.—Mr. President, as to the statement of the deficit, that was simply a plain mistake so far as the amount was concerned. The report read by Dr. Blumer stated that the deficit on three volumes already issued and supplied to members was about \$2600; I can't remember the definite figures, and that the cost of printing and binding of the fourth volume must be estimated; that can't be definitely stated but upon the basis of the cost of the other three volumes that there would be a total deficit of \$3500 to \$3600. That fourth volume is not yet completed. For the three volumes completed there is an accurate and definite statement of the deficit.

DR. WOODSON.—Mr. President, I desire to substitute for this motion that the council treat it as it does other bills, pay it off at once and collect for the volumes of the history to be sold as fast as collections are made and so reimburse the treasurer for the outlay proposed. That is an obligation and we must pay it. This committee doesn't mean much unless they are going to pay the deficit from funds already in hand. I move that the Council draw a warrant and pay the debt, and that the Association authorize the Council to reimburse the treasury from the collections aboved referred to.

DR. BRUSH.—Mr. President, I would be glad to accept Dr. Woodson's substitute if the Secretary would satisfy the Association that there is enough money on hand to pay the amount.

THE SECRETARY.—There is not enough money on hand to do it and I don't think that the Secretary's personal check would go.

THE PRESIDENT.—The Treasurer has not enough funds on hand to meet this deficit at the present time.

DR. WOODSON.—Mr. President, the Treasurer seemed to have enough money yesterday.

THE PRESIDENT.—Yes, but the cost of publishing our transactions will be two or three thousand dollars.

The resolution of Dr. Brush was lost.

THE PRESIDENT.—The matter now remains in the hands of the original committee.

DR. WOODSON.—How much money can be applied at this time?

THE PRESIDENT.—It is impossible to say that. We haven't received all the bills but it is likely that the balance on hand will be as much as \$3000.

DR. WOODSON.—Can't that be spared?

THE PRESIDENT.—We have no bill for the publication of the transactions nor have we enough to cover other expenses incidental to the cost of the meeting.

DR. WOODSON.—Can the Treasurer spare \$2500.

THE PRESIDENT.—Yes.

DR. WOODSON.—I move that the Association pay \$2500 from the funds in hand with the assurance that the remaining volumes be offered for sale and that every member of the Association make it his duty to assist in disposing of them.

DR. S. E. SMITH.—Mr. President, the Association has already authorized the payment of \$2500 from the resources of the Association and \$500 from the JOURNAL OF INSANITY, so that this motion, if passed, will simply confirm the action taken by the Council on that subject. I think the Association may rest at ease about the matter. I think this committee will take all necessary steps to care for it.

THE PRESIDENT.—If there is anything to be done about the motion of Dr. Woodson it will require a second.

There being no second, the President declared the motion lost.

DR. BRUSH.—Mr. President, as I understand it, the committee created by the Council is authorized to pay as much of this debt from the funds of the Association as possible up to a limit of \$3000; and to use the funds of the JOURNAL OF INSANITY to supplement this sum up to a limit of \$500, if that amount is available.

THE PRESIDENT.—That is my understanding.

The President announced as the next business the report of the Committee on Psychology in the medical schools.

DR. ABBOT.—Mr. President, the work has rather lagged. There is a great deal of detail to the work which the Committee has not completed and I would like to report progress and to ask that the committee be continued.

THE PRESIDENT.—If there is no objection the committee will report progress and the work will be continued.

The next report will be that of the Committee on Revision of Proposition, by Dr. Owen Copp, Chairman.

Dr. Copp then submitted the report of the Committee.

PRELIMINARY REPORT OF THE COMMITTEE ON REVISION OF THE
"PROPOSITIONS."

The Committee on Revision of the "Propositions" of the Association has found the subject of such magnitude that the preparation of an adequate report for submission this year would have been difficult, but so much doubt has been expressed as to the wisdom of attempting such revision, that it seemed best to the committee to review the history of the "Propositions" and request discussion of the matter.

An authoritative compilation of these "Propositions" was published by the Association in 1876 in a pamphlet of 32 pages. But, as this pamphlet is not readily available to the members, the following references to the "Propositions" as published in the AMERICAN JOURNAL OF INSANITY may be of use.

The first "Proposition," relating to the use of restraint, was adopted at the first meeting of the Association in 1844.

In 1848 disapproval of political appointments was expressed (*Am. Jr. of Ins.*, July, 1848, p. 91), and the necessity of adequate, artificial means of indirect heating and ventilation was emphasized. (*Am. Jr. of Ins.*, July, 1849, pp. 66-67.)

In 1851 the Standing Committee on Construction of Hospitals for the Insane presented a series of 26 "Propositions" Relative to the Structure and Arrangement of American Institutions for the Insane, which were unanimously adopted. (*Am. Jr. of Ins.*, July, 1851, pp. 79-81.)

In 1853 a special committee presented a similar series of 16 "Propositions" "Relative to the Organization of Hospitals for the Insane," which were likewise unanimously adopted. (*Am. Jr. of Ins.*, July, 1853, pp. 68-79.) It is stated that both series of "Propositions" embodied "the well-ascertained views of the members of the Association" and "may be received as the authorized exponents of its views."

The first notable division of opinion arose in 1866 after a long discussion of provision for the chronic insane and extension of the limit of capacity of an institution from the original 200, or 250 to 600. The vote on such extension of capacity stood 8 to 6 in the affirmative. Reaffirmation of the "Propositions" with this modification was made by a vote of 9 to 5. (*Am. Jr. of Ins.*, July, 1866, pp. 147-250.)

In 1868 Dr. Isaac Ray presented, substantially in the same form as previously in 1850, "The project of a law regulating the legal relations of the insane" which was unanimously adopted as a "Proposition" of the Association. (*Am. Jr. of Ins.*, July, 1850, pp. 92-96, and July 1868, pp. 141-143.)

In 1869 the conviction was expressed that religious services of some kind should be regularly held in institutions for the insane. (*Am. Jr. of Ins.*, Oct., 1869, p. 163.)

The thought and purpose back of these "Propositions" appear from the record that "the Standing Committee on the Construction of Hospitals for the Insane was instructed to report to the next meeting (1851) a series of propositions relative to the structure and arrangements of American institutions for the insane, that would embody the *well ascertained views* of the body in reference to many points in regard to which there was *no difference of opinion*." (Am. Jr. of Ins., July, 1851, p. 79) and, further, in the preamble to resolutions offered in 1876 by Dr. Ray that "The Association of Medical Superintendents of American institutions for the insane, having been formed for the purpose of promoting the welfare of the insane, regard it as one of their duties to inquire into and pass judgment upon any scheme, project, or change, offered professedly with this end in view. They would be faithless to the trust they have assumed, were they to remain in silence while changes in the management of our hospitals are forced upon us, calculated to impair their usefulness and inflict a positive harm upon their inmates. (Am. Jr. of Ins., 1876, p. 346.)

Pursuant to this purpose and sense of duty of the Association, whenever any important question arose relative to such matters, and, whenever any deviation threatened violation of the principles established by existing propositions, it became customary to reaffirm former utterances, or to formulate new ones to suit the occasion.

In 1870-71 the establishment of the Willard Asylum for the Chronic Insane excited sharp discussion in the Association, exhibiting much diversity of opinion as to the wisdom of separation of the chronic insane in special institutions, but, nevertheless, the propositions were reaffirmed with slight modification. (Am. Jr. of Ins. propositions, Oct., 1870, p. 224; discussion Oct., 1871, pp. 214-219 and 254-258.)

In 1871 didactic and clinical instruction on insanity and medical jurisprudence was recommended to every school conferring medical degrees. (Am. Jr. Ins., Oct., 1871, p. 318.)

In 1872 overcrowding of hospitals for the insane was deprecated and the exclusion of any excess of patients over capacity was recommended to boards of trustees. (Am. Jr. of Ins., Oct., 1872, p. 242.)

In 1873 propositions were unanimously adopted relative to separate provision for insane criminals apart from other insane. (Am. Jr. of Ins., Oct., 1871, pp. 215-237.)

Again in 1874 the propositions were reaffirmed because it had been brought to the notice of the Association that state and county authorities were departing from the "spirit and tenor of the principles" established by it. (Am. Jr. of Ins., Oct., 1874, p. 238.)

In 1876 Dr. Ray offered a series of eleven resolutions against any form of supervision above that of the Board of Managers, or Trustees, of the individual institution, and, particularly, against "supernumerary functionaries" "endowed with the privilege of scrutinizing the management of the hospital," and "controlling" it either "directly by the exercise of superior power" or "indirectly by stringent advice." They were adopted as "Propositions" with two dissenters. (Am. Jr. Ins., Jan., 1876, pp. 245-354.)

In the same year propositions against the care of inebriates in hospitals for the insane and recommending establishment of separate institutions for them were adopted with a few dissenters. (Am. Jr. of Ins., Jan., 1876, pp. 364-386.)

In 1887, after an interval of 11 years, the Association again appointed a special committee consisting of Drs. Orpheus Everts of Ohio, Daniel Clark of Canada, and Foster Pratt of Michigan, with instructions to "review the propositions and purposes of this Association and report at the next meeting whether any modification should be made." (Am. Jr. of Ins., July, 1887, p. 128.)

In 1888 the report of this committee was made, discussed at length and rejected by a vote of 21 to 13. (Am. Jr. of Ins., July, 1888; report, pp. 50-57; discussion, pp. 127-143; vote, p. 141.) During the discussion a letter from Dr. Pliny Earle was read from which the following extracts are taken:

"By the published program of the proposed proceedings at the meeting at Old Point Comfort, I perceive that 'a report upon the Propositions' adopted by the Association more than thirty years ago, is expected." "I have not been informed of the object in calling for such report, and am, consequently, forced to the inference that it is the intention of the Association to once more take into consideration the utility of those propositions as to what may be called a codified expression of opinion, and, thus, determine the propriety of their future retention....As one who voted for the original adoption of the first series of those propositions, and who would have voted in favor of the second series had he been present at the meeting when they were adopted, it may not be improper for me to give my present views in regard to them.

"In nearly all human undertakings, promotive measures vary in the different periods of the enterprise, so that, not infrequently, the course pursued in the earlier stages may afterwards become not only ineffective for good, but absolutely detrimental. The 37 years of the existence of the first series of the propositions constituted an era of almost marvellous activity in our specialty, and consequently unanticipated growth and expansion of it in every direction. Experience has been gained, circumstances have been altered, new views have been promulgated, opinions have been reversed or modified, and hence the propositions have to a very considerable extent been disregarded.

"Among those whose opinions have undergone a change I must place myself. Nor is this change, in some respects, of a recent origin."...

"But in my opinion, one of the greatest, perhaps *the* greatest objection to the 'Propositions,' as an embodiment of the views of the Association, is the influence, whether just or unjust, which they have exercised upon public opinion. I most fully believe that they have constituted the principal factor among those agencies which, in some sections of the country, have greatly impaired the prestige which the Association once enjoyed, by engendering a belief that it is practically averse to progress in improvement;

that it is running in the 'cast iron ruts' of precedent, that it is indissolubly bound to the faith of the fathers, despite the enlightenment of more recent observation, experience and thought. It is to be feared that the direct benefit of the 'Propositions' to the cause, which they were intended to promote, has been more than counterbalanced by the indirect detriment thus produced."

In summing up the discussion Dr. W. W. Godding said, "So then, of the seven survivors of the meeting of the Association in 1851, when the original 'Propositions' were adopted, all will have been heard from but Dr. Stokes.

"The unanimity of sentiment of that earlier day has given place to a diversity of opinion in the very men who framed these 'Propositions,' which only a practical experience in their working could have brought about. With this result, varying surroundings and conditions have had much to do, and the lesson we may learn from it is, that good men, equally earnest, and alike sincere in their desire to make the best provision for the insane, may honestly arrive at conclusions almost diametrically opposite concerning them. This teaching, and may we not also add, as another lesson that line of the old Latin,

'Quieta non movere.'

"'Not to move things at rest?' If we now attempt the revision of the 'Propositions,' or to add what seem self-evident truths to us, will 37 years hence see our survivors any nearer unanimity respecting them than are the survivors to-day?"

Such, in the main, is the history of the "Propositions." Your committee has no suggestion to make, but desires to carry out the wishes of the Association.

Mr. President and members of the Association, we would like your opinion whether it is wise to go on further with this work. It is the unanimous feeling of the committee that they want to do what the Association wants done.

DR. BLUMER.—Mr. President, I am sure we are very much obliged to Dr. Copp and his committee for the very interesting and excellent report here presented. At the same time, most of us will feel, after considering the general subject of "Propositions," that it was a pity to impose this thankless task upon a man possessing Dr. Copp's talents. We are all aware that although the Doctor is not a member of the Society of Friends, he represents a Quaker institution, and so I am reminded of something that happened in Rhode Island in the time of George II, during the colonial governorship of Gideon Wanton. The governor had a kinsman, one William Wanton of Scituate, a Quaker, who had fallen in love with a young woman who was a Congregationalist. Not being able to marry out of meeting, William said to his beloved: "Friend Ruth, let us break from this unreasonable bondage—I will give up my religion and thee will give up thine, and we will join the Church of England and go to the devil together."

Now, gentlemen, it seems to me we have a situation here that has a bearing on this report. We don't want to rivet bonds upon this Association at this time—that would be an anachronism; rather let us think of "Liberty Bonds" to-day. (Applause.) I for my part—and I am sure I voice the opinion of most of the men of the Association—would rather go to the devil, or its equivalent, as a latitudinarian than endure the bondage of any "Propositions," either ancient or modern.

I therefore move you, Mr. President, that the report of the committee be received with gratitude and that the committee be discharged.

THE PRESIDENT.—Before putting the motion I would like to say that when the speaker referred to the misuse of the talents of the Chairman of the committee on this work, he looked twice at your President. Your President declines all responsibility, for that committee was appointed by his predecessor. (Laughter.)

The motion of Dr. Blumer was duly seconded and unanimously adopted.

DR. BRUSH.—Mr. President, I would say that your predecessor appointed the committee upon the request of the Association and not because he believed in the general proposition himself.

THE PRESIDENT.—We have a Committee on Immigration of which Dr. Brush is Chairman. Can we have a report from that committee?

DR. BRUSH.—Mr. President, as all the members are aware the Immigration Law was passed by Congress, vetoed by the President because of the illiteracy clause, but again passed over the President's veto.

The new law will greatly improve conditions relating to preventing insane and mentally defective aliens coming into the country, and will facilitate the deportation of many now here. When the war is over it will be in more active operation and its working value can be then tested.

This Association was early in the field in the endeavor to secure better regulations of immigration and has by various committees done much to bring about the enactment of the present law. The previous reports of the present committee will show some of the work done. No further duty remaining I move the committee be discharged.

The motion, duly seconded, was adopted.

THE PRESIDENT.—The hour is late; we have done a large amount of important business. Yesterday at the close of the morning session there were three or four papers that were unable to reach, one by Dr. Wholey, one by Dr. Orton, one by Dr. Cotton and his associates. It is the opinion of the President that that part of the program should be omitted now and that we should proceed with the regular program for Thursday morning. If there is no objection we will begin this morning by hearing a paper on "Mechanism and Treatment of Exhaustion," by Frank P. Norbury, M. D., of Jacksonville, Ill.

As Dr. Norbury was not in the room the President announced that the next paper, "Physiotherapy," would be read by J. Clement Clark, M. D., of Sykesville, Md.

At the close of Dr. Clark's paper, the President announced that discussion was in order.

DR. WALTER B. SWIFT, BOSTON.—Mr. President, I would like to call the attention of the Association to a series of exercises that I have originated for the treatment of tremors of different sorts. They have been tried in paralysis agitans with partial help and other tremor conditions as "essential tremor" and can be explained to a nurse in a few hours and applied to hospital patients. The system is too long to be described here, but I will mail reprints describing the system to any who give me an address.

THE PRESIDENT.—I desire to announce that from now on all papers will be limited to 15 minutes in duration, owing to the lateness of the hour and the fact that we have quite a number of papers yet to be read—unless the Association directs otherwise.

The next paper on our program is "The Sterilization of the Insane," by Dr. John A. Reily, of Patton, California. As Dr. Reily does not appear to be present, we will proceed to the next paper, "Results in Treatment of Paresis by Inunctions of Mercury and Drainage of the Cerebro-Spinal Fluid," by Alan D. Finlayson, M. D., of Warren, Pa.

Dr. Finlayson's paper was discussed by Dr. C. B. Burr and Dr. Woodson.

Dr. Woodson moved that Dr. Finlayson be requested to continue his investigations and to make a report at the next annual meeting, which being duly seconded, was adopted.

The President announced the next paper, "Experiments with Pituitrin in the Treatment of Dementia Præcox," by Dr. T. C. Biddle, of Topeka, Kansas. Dr. Biddle being absent the President announced that as several papers had not been read, owing to the absence of the writers, the papers omitted from the program of yesterday would be called for. Dr. Wholey was asked to read his paper entitled, "Revelations of the Unconscious in Cases of Alcoholic Hallucinosiis."

Dr. Wholey's paper was discussed by Drs. Wm. A. White, Walter B. Swift, William McDonald, E. E. Southard and Dr. Wholey in closing.

THE PRESIDENT.—The next order of business is the report of the Committee on Diversional Occupation.

This report was presented by Dr. R. H. Hutchings, Chairman.

The Committee on Diversional Occupation begs to submit its report of the exhibition now on view in an adjoining room. The experience of former years has made evident the fact that in our hospitals for the insane a very high class of work is being regularly turned out by the patients in the occupation classes and it can no longer be disputed that such work compares favorably in quality and will sell for as high a price as similar work made anywhere. The large and beautiful exhibits which were shown at Old Point Comfort and at New Orleans have settled this point beyond question. It, therefore, seemed to the committee that further displays of miscellaneous articles would no longer be of interest but rather the exhibits should be planned to bring out the methods employed in providing occupation in the different hospitals and to show the progress made by individual patients as a result of educational efforts along these lines.

Your committee issued a circular in December inviting participation in the exhibit to be held in connection with this meeting and requested the hospitals to confine their displays to articles which would demonstrate the advantages gained by individual patients as a result of occupation, and suggested that serial pieces be shown and that they be accompanied by an abstract from the clinical record showing the improvement in the mental condition coincident with and presumably due to employment.

Subsequently this was modified to admit three additional classes of articles, namely:

- (a) Group work, where several patients co-operated in the making of the article.
- (b) Models or drawings of work rooms where patients are employed.
- (c) Photographs and other representatives of amusements, diversions and recreations afforded to patients.

The committee believes that in the work of re-education amusements occupy a place no less important than work. The object to be gained is to interest the patients and divert their minds from painful introspection and project them into more healthy channels of interest, and this object can often be gained, or at least a beginning can be made, through amusements and that these should be judiciously combined with occupation to afford the maximum benefit.

The committee is pleased to report that the response of the several hospitals has been most satisfactory and encouraging. The display in an adjoining room is highly creditable and has been greatly enjoyed by all those who have seen it. Displays have been made in all subdivisions and the competition in several of the groups was keen. The President appointed a Board of Judges to pass upon the merits of the several exhibits and made an excellent selection of persons who were thoroughly familiar with the subject and who were not connected with hospitals entering into the competition. The report of the judges has been prepared and I will read it as it has been handed to me by the Chairman, Mr. George A. Hastings.

REPORT OF THE JUDGES OF THE EXHIBIT ON DIVERSIONAL OCCUPATION OF THE
AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION, HOTEL ASTOR,
NEW YORK, MAY 29 TO JUNE 1, 1917.

The committee appointed to judge the exhibit on diversional occupation at the annual meeting of the American Medico-Psychological Association at the Hotel Astor, May 29 to June 1, 1917, reports that after painstaking inspection and examination it has reached the following conclusions:

Private or semi-private institutions best illustrating (1) Progress made by individual patients, (2) Group work, (3) Work rooms, (4) Amusement, diversions or recreations—Bloomingdale Hospital, White Plains, N. Y.

Public hospital best illustrating all four points above enumerated—Allentown State Hospital, Allentown, Pa.

Public hospital best illustrating progress made by individual patients—St. Lawrence State Hospital, Ogdensburg, New York.

Public hospital best illustrating group work—Allentown State Hospital, Allentown, Pa.

Public hospital exhibiting best figures or models illustrating work rooms—Allentown State Hospital, Allentown, Pa.

Public hospital exhibiting best schedule showing the number of forms of amusements, diversions or recreations—Binghamton State Hospital, Binghamton, N. Y.

HONORABLE MENTION.

The committee would also award honorable mention to the following institutions:

To the Pennsylvania Hospital—for the best articles illustrating the greatest progress by an individual patient in a private institution.

To the Napa State Hospital, California, for the most remarkable group of articles illustrating progress by an individual in a public institution.

To the Sheppard and Enoch Pratt Hospital, Maryland—for its exhibit of group work in a private institution.

To the Columbia State Hospital, South Carolina—for general excellence of its exhibits as indicating progress in diversional occupation work within a short period since its inauguration at the institution.

CERTIFICATES OF EXCELLENCE.

The committee would also award the following certificates of excellence:

To the Bloomingdale Hospital—for graphic charts effectively indicating and displaying the growth and development of its diversional occupation.

To the Sheppard and Enoch Pratt Hospital—for pleasing results obtained with simple designs, colors and materials.

Pennsylvania Hospital—for definite and orderly arrangement of a display for interesting and educating the public.

The judges desire to record their impression that the entire exhibit is unusually effective, attractive and well calculated to stimulate interest and results in diversional occupation.

Respectfully submitted,
GEORGE A. HASTINGS, *Chairman*,
MISS SUSAN C. JOHNSON,
FRANKWOOD E. WILLIAMS, M. D.,
WILLIAM W. RICHARDSON, M. D.,
JESSE COGGINS, M. D.

At the close of the report on motion duly seconded and adopted, it was accepted and placed on file.

The President announced a Council meeting to be held shortly after adjournment to which ex-presidents of the Association would be cordially welcomed. He also announced that the excursion about the city in automobiles for the visiting ladies would start from the Hotel Astor at 2.30 p. m.

AFTERNOON SESSION.

THE PRESIDENT.—The last paper on the program before luncheon was to have been read by Dr. L. Pierce Clark of New York City, on "Extra-Asylum Psychiatry." I was under the impression that the Doctor was not here but learned subsequently that he was in the room and that he would like to have an opportunity of presenting a short paper to the Association. I will first call for the report of the Council.

At a meeting of the Council held May 31, the following were recommended for associate membership:

Dan S. Renner, M. D., Skillman, N. J.; John V. Donner, M. D., Morris Plains, N. J.; De Land B. Alford, M. D., Boston, Mass.; Catherine MacPhee, M. D., Boston, Mass.; Christine Leonard, M. D., Boston, Mass.

Respectfully submitted,
H. C. EYMAN, *Secretary*.

THE PRESIDENT.—The applications for associate membership will lie on the table until to-morrow morning when they will be called up for action.

Dr. L. Pierce Clark then read his paper which was discussed by Drs. Rosanoff, Abbot, Harris, Russell, W. B. Swift and Dr. Clark in closing.

The Chair then announced the next paper by Dr. L. Vernon Briggs, Boston, Mass., "Occupational and Industrial Therapy." This paper was discussed by Drs. W. L. Russell and Woodson and Dr. Briggs in closing.

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The Chair then announced the next paper by Dr. L. Vernon Briggs, Boston, Mass., "Occupational and Industrial Therapy." This paper was discussed by Drs. W. L. Russell and Woodson and Dr. Briggs in closing.

A paper entitled "A Sociological Study of a Group of Prostitutes" was then read by Dr. Jau Don Ball, Oakland, California.

There being no discussion the next paper, "Psychiatry and the Problem of Feeble-Mindedness," by Dr. William B. Cornell, of New York, was announced. Dr. Cornell not being in the room, the next paper, "Institutional Inefficiency," by Dr. W. M. Hotchkiss, of Jamestown, N. D., was called for.

Dr. Hotchkiss not being present the next paper was read by Dr. J. J. Kindred, of Astoria, L. I., "Eugenics—its Relation to Mental Disease."

There being no discussion of Dr. Kindred's paper the President announced that the program would be varied somewhat and that a paper announced for Friday, "The Toxic Psychoses," would next be read by Dr. G. W. Brown, of Williamsburg, Pa.

There being no discussion of Dr. Brown's paper, the President announced adjournment until 8 o'clock p. m.

EVENING SESSION.

The President announced as the first paper of the evening session, "Mental or Brain Hygiene," by Dr. J. T. Searcy, of Tuscaloosa, Ala.

After the close of Dr. Searcy's paper, the President announced as the next paper, "The Importance of Out-Patient Work Among the Insane," by Dr. A. W. Stearns, of Boston, Mass. Dr. Stearns' paper was discussed by Dr. Briggs, Dr. Ostrander, the President, Dr. Wagner, Dr. Pilgrim, Dr. Houston and Dr. Stearns in closing.

The President announced as the next paper, "Psychopathic Building and Receiving Service," by Chas. A. Barlow, of Spencer, West Virginia.

Before reading his paper Dr. Barlow said:

Mr. President, Ladies and Gentlemen: Before beginning my paper I wish to say that I have nothing new or startling to offer and I expect Dr. Harrington who is to follow me will give you some newer ideas; but the purpose of this paper is that of bringing before the Association again the advisability of psychopathic or detached buildings for receiving service.

DR. HARRIS.—Mr. President, I notice the paper that is to follow this is somewhat similar and I would suggest that discussion of both papers be taken at the close of Dr. Harrington's paper.

The President then announced as the next order, a paper by Dr. A. H. Harrington, of Howard, Rhode Island, "Plan and Equipment of a Reception Hospital," illustrated by lantern slides.

DR. HARRINGTON.—*Mr. President, Ladies and Gentlemen:* I am very glad that we have had this paper of Dr. Barlow's which relates to some extent to the subject which I am to present. Dr. Barlow has gone into some matters which are very essential in the treatment of the whole subject. The scope of my paper is somewhat different, as I am dealing rather with the material side of the subject, that is, with a building, its general plan and lay-out, for the purpose of a receiving service in connection with a state hospital for the mentally ill.

As we all realize to-day practical psychiatry is not confined to hospital wards but is state wide and from what we have heard in this hall this very day we may add, it is nation wide; nevertheless practical psychiatry must always possess its institutional background. Therefore I believe that it will be useful to consider one feature which may enter into hospital planning; namely, the providing for the receiving service of a large state hospital for the mentally ill in a separate building, called if you please, a reception hospital, so planned and administered as to constitute a separate unit as far as practicable of the main hospital plan.

Dr. Harrington then read his paper which was illustrated by numerous lantern slides.

In closing, Dr. Harrington said:

I want to say that in regard to administration and organization of this separate unit of our hospital, we have had to work that out for ourselves, as we have had no available precedents to follow. In regard to the building, however, I want to acknowledge our indebtedness to Dr. Charles P. Bancroft who had personally built a reception hospital building at New Hampshire State Hospital and who was of great assistance both to our architects and myself.

The President then announced the discussion of the two papers in order.

The papers of Drs. Barlow and Harrington were discussed by Drs. C. G. Hill, Harris, J. C. Mitchell, Ostrander and Dr. Harrington in closing.

The President announced as the last paper of the evening, "General Consideration of the care of Epileptics," by Dr. Everett Flood, of Palmer, Mass.

This paper was profusely illustrated with slides.

Dr. Flood in introducing the paper said:

I have almost nothing to offer except the presentation of these pictures and I believe I can properly show what has been done in the care of the

special types of epileptics. I don't pretend that we have anything particularly fine but only something to illustrate the facts.

At the close of Dr. Flood's paper, the Association adjourned until 10 a. m. Friday.

FRIDAY, JUNE 1, 1917.

The President called the Association to order at 10 o'clock.

THE PRESIDENT.—We have completed our program up to the close of Thursday evening leaving us only the papers and other general business scheduled for Friday morning.

In a report submitted by the Council yesterday morning, the applications for associate members were submitted:

Dan S. Renner, M. D., Skillman, N. J.; John V. Donnet, M. D., Morris Plains, N. J.; De Land B. Alford, M. D., Boston, Mass.; Catherine MacPhee, M. D., Boston, Mass.; Christine Leonard, M. D., Boston, Mass.

Dr. S. E. Smith moved that the Secretary cast one ballot providing for the election of these physicians as recommended by the Council.

The motion was seconded and adopted.

THE PRESIDENT.—I will read an interesting telegram received this morning from Dr. Chapin and which was sent in response to the telegram of our Secretary yesterday congratulating him on having been a member of this Association for 50 years:

CANANDAIGUA, N. Y., May 31, 1917.

Dr. H. C. Eyman, Secretary, Hotel Astor, New York.

Many thanks for telegram from your Association. What changes in the care of the insane I have witnessed since my first visit to its New York meeting in 1852 as a visitor, which first inclined my mind to enter its service. Now, I am quite well and retired. No one asks my opinion about anything.

(Signed) JOHN B. CHAPIN.

THE PRESIDENT.—I would now call for a report of the Committee on Resolutions.

Dr. Work, as chairman of the committee, submitted the following report:

REPORT OF COMMITTEE ON RESOLUTIONS, JUNE 1, 1917.

DR. WORK.—Mr. President, your Committee on Courtesies recalls that 57 days ago when the to-be members of your Committee on Resolutions read our declaration of war against Germany, it was jubilant and voiced many vainglorious expressions intended to indicate patriotism.

This attitude was accentuated when we read the uncomplimentary pronouncements of the President of the United States against the Kaiser; even holding his ancestors responsible through hereditary transmission for him and his mannerisms of warfare.

Then the remembrance came to us that almost immediately this Association must hold its annual session on the water's edge nearest to this seeming enemy of all mankind with nothing but Josephus Daniels, to quote General Goethals, between us; and he deep in the woods hunting for "nesting trees for shipbuilding."

Those of us until that moment who believed ourselves securely lodged among the spinous processes of the Rockies, the backbone of our continent, were terrorized, and the vagrant thought of failing in our duty to this Association by industrious flight or intensive home industry was seriously entertained.

But we bought a Liberty Bond, a family burial plot, and, like Israel Putnam, left the cattle yoked to the plow and set our faces resolutely towards the rising sun.

As we neared this cosmopolitan center of uncensored sin our despairing terror increased. Our childhood imagery of devilish physiognomy gradually assumed the cartooned features of a great but misguided ruler wearing a spiked helmet emblazoned thereon "Wilson, that's all."

The signs by the roadside did not reassure us that he might not want more. Utterly disorganized, we believed that the eye of a periscope could wring confessions from us of sins never committed, and I will submit that men less brave would have collapsed en route.

But once arrived, we grasped the outstretched welcoming hands of the Clan MacDonald, its chief the hero of wars now history, restless to enter wars to come, serenely conscious of the triumph of any cause made righteous by the adherence of Scotland. His efficient complacency restored our wavering faith in the doctrine of fore-ordination and brought us peace.

We found one of the Pilgrims yet here to reassure. Herring and Salmon had been provided, the Haviland laid, a Copp on guard, and the Hurd was soon in readiness to start Southard to newer fields of achievements over the great White way.

The Burrs stuck a mite more closely perhaps because of our common menace, but we were not Meyered as we went Anglin for pleasures among the Hills, or chose to Wade through myriads of bright lights in quest of diversions.

The Dewey mornings of May greet us, rarely seen in New York, for here day ends on the day after and morning dawns at high noon. Providence sent us the cultured Blumer with flowers of eloquence, scintillating oratory, bursting with fragrance, with no thorn concealed.

The Burgess of the Dominion of Canada, which desires not annexation but to be a sister to us for the time, and Smith from the security of his East Haven—nothing was left to Hancker after for nothing was less

cordial, less reassuring and nothing amiss, nothing omitted that might even remotely contribute to our enjoyment.

The princely President diffused a melody through every meeting without visible instruments of music, impossible even for the great composer of the same family name, and we congratulate him upon the Association's greatest meeting, scientifically, numerically or in remembrance alone of those selected to guide its future destinies.

Your committee, for the entire membership attending, thanks the thoughtful, kindly and efficient Committee on Arrangements, the management of the Hotel Astor for its hospitality and for the courtesies of its employees; the management of the Manhattan State Hospital for the use of its good ship the *Wanderer*, the bounty of her larder and the civilities of her improvised crew, and we are appreciative likewise to the business men and firms interested in the welfare of the darkened intellect, who were so lavish in expenditure of funds and physical energy for our well-being.

We are about to leave it all, knowing well that we shall return, as all men sometime will, to this great city where welcome always smiles and farewell goes out sighing.

HUBERT WORK, M. D., *Chairman*,

CHARLES G. HILL, M. D.,

JAMES V. MAY, M. D.,

Committee on Resolutions.

THE PRESIDENT.—The report of the committee is before you, what is your pleasure?

DR. WOODSON.—I move that the report of the Committee on Resolutions be accepted and adopted.

The motion of Dr. Woodson was seconded and adopted unanimously.

THE PRESIDENT.—We will now proceed to the regular literary program.

DR. ABBOT.—Mr. President, there is one matter that needs to be cleared up before we go further. The Committee on Statistics rendered a report, a part of which was adopted. A motion was afterward adopted creating a standing committee to continue the work which had been inaugurated. I think no action was taken with regard to the discharge of the first committee, and in order to make the matter perfectly clear I would move that the previous Committee on Statistics be discharged.

The motion of Dr. Abbot was seconded and adopted unanimously.

The President announced as the next order, the reading of a paper by Dr. E. A. Strecker, of Philadelphia, Pa., "Certain of the Clinical Aspect of Late Katatonia with Report of Cases."

There being no discussion of Dr. Strecker's paper, the President announced as the next paper, "A Study of Cases of Manic-

Depressive Psychoses Arising after the Age of 40," by Ray L. Whitney, M. D., Waverley, Mass.

In introducing his paper, Dr. Whitney said:

Mr. President, I was very glad to have had Dr. Strecker's paper precede mine for he has described some of the onsets of these psychoses which I didn't dare put into print. My paper, however, will be found to deal with much of the matter that he has taken out.

At the close of Dr. Whitney's paper it was discussed by Dr. Wm. McDonald.

THE PRESIDENT.—Is there any further discussion of these papers? If not, I would like at this time to call your attention to the meeting scheduled for this afternoon, the announcement for which appeared in the slip at the end of our formal program. It will be a very important meeting dealing with food supplies, especially those supplies which can be produced on the farms of institutions. The United States Commissioner of Agriculture or rather, the Assistant Commissioner, Hon. Carl Vrooman, has promised to be here at 2.30 o'clock to talk to us on this subject. The Deputy Commissioner of Agriculture of the State of New York, Mr. H. B. Winters, will be here at the same time to address us; as you all very well know the success of the great war for the Allies depends very largely upon how the food question is handled, and we, as superintendents and others interested in this question, should come here and listen to what the Commissioners of Agriculture have to recommend and participate in the discussion; not only our members but visitors—all will be gladly welcomed in this room at 2.30 p. m.

The next paper in order is "The So-Called Lucid Interval in Manic-Depressive Psychoses—Its Medical—Legal importance," by Alfred Gordon, M. D., Philadelphia, Pa. Dr. Gordon's paper was then read after which discussion was called for.

The paper was discussed by Dr. G. H. Hill.

THE PRESIDENT.—We have one more paper to present this morning and several to be read by title. The Program Committee showed remarkable foresight or insight of some kind, which enabled them to determine exactly what we could do at this meeting. The meeting is expected to terminate at noon and the next paper will take exactly the remaining 15 minutes, we shall therefore complete the program in the time allotted for it.

The following papers will be read by title:

"Focal Infections," by Carl W. Sawyer, M. D., Marion, Ohio; "Impulsive Acts, in the Form of Swallowing Foreign Objects, with a Report of four Unusual Cases," by A. W. Hosholt, M. D., Napa, California; "What Personal Attention Means to the Patient," by H. J. Gahagan, M. D., Elgin, Illinois; "Complement

Deviation Tests for Tuberculosis in the State Hospitals," by E. T. Gibson, M. D., Middletown, Conn.; "Some Suggestions on Pathology and Treatment of Alcoholism," by Chas. G. Hill, M. D., Baltimore, Maryland; "Military Training in Public Schools as a Prevention of Mental and Physical Delinquency," by H. G. Sights, M. D., Paducah, Kentucky; "Diet in Psychiatry," by Dr. Tom A. Williams, Washington, D. C.

We will next have the paper, "Malingering: A Problematical Case," by Dr. William C. Sandy, Columbia, S. C.

At the close of Dr. Sandy's paper it was discussed by Dr. C. F. MacDonald.

THE PRESIDENT.—*Ladies and Gentlemen of the Association:* The literary program of this session is now concluded. Is there any further business to be transacted?

If there is none, the hour has arrived for the closing scene of what I think may fairly be termed the best meeting we have had in the entire history of this Association. The scientific papers presented have been uniformly of high character, the discussions have been interesting and highly beneficial to us all. The scientific, educational and occupational exhibits in the adjoining hall have been very fine indeed. The attendance has been exceptionally large—I think fully 500, the register shows 418—which is by far the largest we have ever recorded. The hall provided for our meetings has been unusually well situated in that it has been free from noise and disturbances which have troubled us quite a little at some of our other meetings. The many distractions of this great city with all their alluring magnetism have not interfered with this meeting for our sessions have been the best attended that I have ever seen in an experience of 30 years. Perhaps the all-wise Providence, that watches over everything, helped us to some extent in this respect by sending frequent and copious rains that made it more comfortable to stay inside than to wander abroad—at any rate, I think all who have participated in our sessions, as they have progressed, will agree with me that the seventy-third annual meeting of this Association has been a success. It now remains for me to perform the pleasant duty of inducting into office my successor, Dr. James V. Anglin, of St. John, New Brunswick, and I will ask Dr. Clark, of Maryland, and Dr. Burr, of Michigan, if they will kindly escort Dr. Anglin to the Chair.

Addressing Dr. Anglin, President Wagner said:

Dr. Anglin, you have been called to the highest office in the gift of this Association. Your fellow members have placed upon you the hall-mark of sterling silver and I but voice their sentiments when I say to you that our members one and all have the utmost confidence in your ability to safely guide this Association through the coming year and to make the meeting of 1918 better, larger, stronger and more successful than any

of its predecessors. You come from the Dominion of Canada on the other side of the St. Lawrence River. We of the United States have long looked upon you and your people as our friends and neighbors; but now, in the great struggle, in which you as well as ourselves are engaged not only for self-protection but for the common good of humanity throughout the world, a closer tie binds us that I trust may never be broken. Remembering our common ancestry, our high aims and our unity of purpose, let us henceforth fight our battles together shoulder to shoulder, "never more to walk alone."

In turning over to you the affairs of the American Medico-Psychological Association, it affords me great pleasure to hand you this gavel, the emblem of your office, and to assure you of the cordial and hearty support of every member in all your undertakings.

Upon assuming the Chair, Dr. Anglin said:

Dr. Wagner, I thank you for your generous words. To my sponsors I am grateful for their support much needed at this hour. To the members of this Association, I am proud to occupy this place and I thank you for the honor. I must detain you a few minutes longer in session as there are some committees that should be named, especially this year. The most important business at this moment is to remind you of the meeting to be held this afternoon on food production, as you know in wartime, food is as necessary as men.

As to the appointment of committees, the committee on Scientific Exhibit and Pathological Investigation stand as in former years. The Committee of Arrangements will consist of Drs. Sanger Brown, Richard Dewey, Geo. A. Zeller, H. G. Gahagan, H. Douglas Singer, Frank Norbury, Sidney A. Wilgus, S. E. Smith and H. C. Eyman.

The Committee on Diversional Occupation will consist of Dr. R. H. Hutchings, Chairman; Dr. Jesse C. Coggins, Dr. William W. Richardson, Dr. William Rush Dunton, Dr. H. G. Gahagan.

The Committee on Program will consist of Drs. H. W. Mitchell, E. E. Southard, Sanger Brown, Alfred T. Hobbs, Henry C. Eyman and George H. Kirby.

The Committee on Statistics will consist of Drs. Thomas W. Salmon, Adolf Meyer, Albert N. Barrett, E. Stanley Abbot, George H. Kirby, Owen Copp and James V. May.

The Committee of Superintendents or other representatives to co-operate with the National Committee for Mental Hygiene and National Council of Defense will consist of the following: Dr. Burr, of Michigan, Chairman; Alabama, James T. Searcy, M.D.; Arizona, Alfred C. Kingsley, M.D.; Arkansas, James L. Green, M.D.; California, Jau Don Ball, M.D.; Colorado, Hubert Work, M.D.; Connecticut, C. Floyd Haviland, M.D.; Delaware, W. H. Hancker, M.D.; District of Columbia, William A. White, M.D.; Florida, Ralph M. Greene, M.D.; Georgia, Henry D. Allen, M.D.; Idaho, John W. Givens, M.D.; Illinois, George A. Zeller, M.D.; Indiana, S. E. Smith, M.D.; Iowa, W. P. Crumbacker, M.D.; Kansas, Thomas Biddle, M.D.; Kentucky, H. B. Sights,

M. D.; Louisiana, Clarence Pierson, M. D.; Maine, Forrest C. Tyson, M. D.; Maryland, Edward N. Brush, M. D.; Massachusetts, Henry R. Stedman, M. D.; Michigan, C. B. Burr, M. D.; Chairman; Minnesota, C. Eugene Riggs, M. D.; Mississippi, J. M. Buchanan, M. D.; Missouri, C. R. Woodson, M. D.; Montana, J. M. Scanland, M. D.; Nebraska, W. S. Fast, M. D.; New Hampshire, Charles P. Bancroft, M. D.; New Jersey, Henry A. Cotton, M. D.; New York, Charles G. Wagner, M. D.; North Carolina, Isaac M. Taylor, M. D.; North Dakota, W. M. Hotchkiss, M. D.; Ohio, F. W. Harmon, M. D.; Oklahoma, John M. Duke, M. D.; Oregon, Henry Waldo Coe, M. D.; Pennsylvania, Henry A. Hutchinson, M. D.; Rhode Island, G. Alder Blumer, M. D.; South Carolina, C. F. Williams, M. D.; South Dakota, L. C. Mead, M. D.; Tennessee, James J. Neely, M. D.; Texas, John Preston, M. D.; Utah, George E. Hyde, M. D.; Vermont, Shailer E. Lawton, M. D.; Virginia, William F. Drewery, M. D.; Washington, Robert P. Smith, M. D.; West Virginia, Charles A. Barlow, M. D.; Wisconsin, Richard Dewey, M. D.; Wyoming, Charles H. Solier, M. D.; Canada, Dr. T. J. W. Burgess, M. D.

PRESIDENT-ELECT ANGLIN.—*Gentlemen of the Association:* Now that my hour has come, without being told I know that I shall have the sympathetic assistance of every member of the Association, the officials, past, present and future ones, and, of course, in this Republic, that includes all.

I do not expect to occupy fully my predecessor's shoes but I shall do my best to keep up the pace set. We cannot mark time. No matter what other business may be abandoned in these troublous times the unfortunates entrusted to our care must not be neglected, not only for their own good but that of the community. The Canadian military act grasps this when it exempts from military duties the staffs of institutions for the insane.

Unworthy as I am to occupy this, the most exalted position in your gift, I appreciate more than words can convey the honor conferred on me and on my country.

Now that this great Union has entered into the conflict to preserve civilization, it seems more than a coincident compliment that one who owes allegiance to the flag that has braved the battle and the breeze for centuries should be acclaimed President of this Association, beneath the folds of that younger banner which has ever been unfurled in service to mankind.

While here we have witnessed the observance of your Decoration Day. Your sister country to the north must soon institute hers. The cream of our youth are spending themselves for us on foreign soil.

In the past we have been wont to speak of worthy sons of worthy sires. We must reverse that now. Our boys are falling for us like heroes even as we speak. The greatest inspiration in life for better things comes to us from the supreme sacrifices they are making on behalf of all that they hold dear.

May we prove worthy!

I would suggest that we all join in singing "America." Dr. Ostrander will be good enough to lead us on the piano.

At the close of the singing the President said:

Gentlemen: Reluctantly I declare the Seventy-third Annual Meeting of the American Medico-Psychological Association concluded.

The final session was then brought to a close at 12.15 p. m.

H. C. EYMAN,
Secretary.

NOTE.—The special afternoon session was well attended and the address of Hon. Carl Vrooman, Assistant Secretary of Agriculture, was received with marked attention and provoked an interesting discussion. By resolution the address was ordered printed and distributed to the members of the Association. The address has been printed by the Sheppard Hospital Press, and distributed by mail from the hospital. Additional copies may be obtained from the Secretary, Dr. Eyman.

Notes and Comment.

PROCEEDINGS OF THE AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION.—We have already made editorial comment upon the meeting in New York, in the July issue of the JOURNAL. At the time we did not have a copy of the secretaries' minutes of the various sessions before us and what was written reflected merely personal recollection of what took place.

Our readers will, we are sure, find, in a full report of the proceedings which we present in this number, much of interest. The reports from committees were of more than usual interest and contained many practical suggestions. Notwithstanding the fact that the Statistical Report had been printed and distributed some time in advance of the meeting, there were a few members who wanted more time for consideration and others who, having no patience with statistics, were willing to ignore the work of an able committee, ably performed. We believe the report should be carefully studied, and that, as far as possible, its tables and forms should be used in the annual reports of both public and private institutions. The difficulty, which always attends an effort to secure a uniform classification and statistical tables based thereon, will be met in this instance—the difficulty, indeed the impossibility, of getting a large number of men to see and group cases alike. We trust, however, that an earnest and united effort will be made to put into practical use the recommendations of the report. It is by this course alone that its merits can be proven and its defects discovered and eliminated.

Dr. White made an interesting report from the Committee on Mental Hygiene, and Dr. Southard presented two reports, one from the Committee on Pathological Investigation and the other from the Committee on Scientific Exhibit. The first report conveyed certain recommendations, some seven in number, which Dr. Southard, with scant appreciation of the real functions of the Committee on Resolutions, asked to have referred to that body, under the impression, apparently, that it took under careful consideration resolutions or suggestions offered for the consideration

of the Association, and advised the action to be taken. Dr. Southard's report was referred by the President, in an absent-minded moment, to the Committee on Resolutions, when it should have gone to the Council, if the Association was not ready to take action at once. It is to be hoped that at the next annual meeting Dr. Southard's report be brought up and given the attention which its importance demands.

The addresses of welcome from Mayor Mitchell, Drs. James, Dana and Stephen Smith were most excellent examples of what addresses of that character should be. We have on more than one occasion suggested that addresses of welcome at our annual meetings from public officials and others were commonly of the most perfunctory character and might well be omitted from the programme. To have done so at the meeting in New York would have entailed a distinct loss to those who were present. Mayor Mitchell has shown a gratifyingly active and intelligent interest in the charitable and penal institutions under the control of the city of New York. In the face of much opposition he has brought about a distinct improvement in many different departments. In none, perhaps, has this been more marked than in the care of sick children and in the conduct of institutions intended for their care. He has lent a willing ear to the best advice obtainable and the results already attained have shown the wisdom of his course.

The remarks of Drs. James and Dana speak for themselves, and were both appreciative of the work of the Association and suggestive of the point of view of an eminent consultant on the one hand and a leading neurologist on the other.

It seldom falls to the lot of an association of any character at its seventy-third annual meeting to be addressed by one who had been present at its seventh annual session.

Dr. Stephen Smith, beyond the first quarter of his ninety-fifth year, showed in his address that age, if we are to count age by years, had not lessened his mental activities, or materially sapped his physical powers. His address, which is presented in full in the proceedings, is a unique contribution to the history of the Association.

Referring to the fact that all who took part in the meeting in 1852 were deceased, Dr. Smith quoted from Job: "I only am escaped alone to tell thee." It is, in connection with Dr. Smith's

remarks and the New York meeting of 1917, an interesting fact that a member of the Association whose connection with it dates back to 1867—a period of 50 years—was also present as a spectator at the seventh annual meeting which Dr. Smith attended. In response to a telegram which was sent him from the Association, congratulating him upon completing 50 years of membership, Dr. John B. Chapin sent a graceful reply which was read to the Association on the morning of the last day's session. In the telegram he refers to his presence at the meeting in 1852 and stated that his visit to the meeting first inclined his mind to enter upon the study of psychiatry. He conveyed to his fellow members the gratifying intelligence that he was "quite well." It will be seen, therefore, that Dr. Smith was not, after all, the only one left who could tell the tale of that long ago meeting.

The address of Dr. Smith and the graceful act of the Association in recognizing by a congratulatory telegram Dr. Chapin's 50 years of membership, with his somewhat characteristic reply, were notable events in a notable meeting.

The Association is honored by the membership of two men, both now long past the Psalmist's measure of a man's years, who have done so much for American medicine, who have worked so faithfully in the fields of philanthropy. Their lives will be measured by their work rather than their extended years. They have lived. Of each it can be said, in the words of Horace:

"Ille potens sui
Laetusque deget, cui licet in diem
Dixisse, Vixi."

THE SENIOR MILITARY MEDICAL ASSOCIATION.—The following is taken from a circular letter sent out by Dr. William Duffield Robinson, Chairman of the Executive Committee of this new organization. The extract explains the organization and objects of the association:

Our government is and will continue to be more in need of physicians than of any other class of men in the prosecution of the present war—a war for the maintaining of our established rights and liberties and our self-respect and the respect and honor due us by other nations.

Surgeon-General Gorgas called a representative committee of the older physicians to Washington for conference, and it was there arranged that an organization of the physicians past the age of 55 years (the age limit for

admission to the Army and Navy Reserve Medical Corps) should be formed, and that it should also admit physicians under 55 years if they are kept at home by reason of teaching in medical schools or being unable to pass the severe medical examination required for admission to said Medical Corps.

The Senior Military Medical Association was then formed, and at a largely-attended meeting the officers above named were elected.

The purpose of the association is to serve the government by performing such medical work as the members are capable of, especially at or near the member's residence. Its members mostly can do only part-time work, but some are able to go from home and do full-time service. The arrangement will probably be a contract with the government to do special service, with a military grading. The pay will be according to the grading and work performed.

It is felt that the members of the association can act as consultants in general and special physical conditions of recruits and conscripted men; also, in matters of sanitation and hygiene, and in making general physical examinations and mental and special examinations and in working in local hospitals or established places or cantonments where the sick or injured men may be sent; or those where fitness may be brought about in men medically rejected from admission to the service; also in performing any other work they may be capable of by the direction of the government.

No assurance can at present be given as to when service may be requested. Men may apply for admission to the S. M. M. A. by filling out the blank card which will be supplied upon request to Dr. Alexis Dupont Smith, and returning it properly filled out and one dollar, the annual dues made necessary to cover postage and incidental expenses.

For the present, residential limit of eligibility for membership includes Pennsylvania, New Jersey, Delaware and Maryland. When points remote from Philadelphia have organized units or branches of the S. M. M. A., membership may be transferred.

The membership now numbers several hundred, whose loyalty has impelled them to offer such service as they can perform for their country, now in the time of its need. Surely no slackers are they, when they might have been excused. Their country's honor their honor.

Dr. W. W. Keen is president and Dr. C. B. Longenecker, 3416 Baring St., Philadelphia, secretary-treasurer. Communications may be addressed to him or to Dr. William Duffield Robinson, chairman of the Executive Committee, 2012 Mt. Vernon St., Philadelphia, or Dr. Alexis Dupont Smith, secretary of the Executive Committee, 5926 Greene St., Germantown, Philadelphia.

This association, which we believe will extend its membership over the whole country, offers a practical solution of the problem

which has confronted many men who are past the age of admission to the Medical Officers' Reserve Corps: "How can we best serve our country and humanity in this world-wide conflict?"

Men who are specialists in hospital organization, or in various departments of medicine, can, as consultants, or in other advisory capacities, give to the government service of very great value, if the government can be informed through an organization of this character what men are willing to give the services, and in what departments they are by study and experience best prepared to serve. In psychiatry, for example, the directors of our state and incorporated hospitals who are near concentration camps or base hospitals in this country, could, without serious interruption of their regular work, act as consultants at these places, or give part-time service, to which reference is made elsewhere.

If the Senior Military Association will act in cooperation in this respect with the National Committee for Mental Hygiene, by notifying that body, which has been placed in charge of psychiatric and neurologic work, what members of the association are prepared to serve and to what extent their services can be called for, much duplication of work and much confusion will be saved.

We trust that all readers of the JOURNAL who, by reason of age and residence are eligible for membership, will enroll their names in the membership of the association, indicating how and to what extent they are willing to serve the country.

PART-TIME SERVICE IN THE MEDICAL DEPARTMENT OF THE ARMY.—The Surgeon General has authorized the employment of physicians under contract for limited service. The contract doctor is given a contract for a definite class of work at a definite place. At the termination of that work his contract can be annulled if so desired, or he can be continued in service and given another assignment. He is practically still a civilian, has received no commission and has been obliged to pass no physical examination. He acquires no claim against the government for disability incurred in the line of duty. He is obliged to wear uniform and has a compensation of \$150 per month, with mileage for travel under order. The executive officers of the Surgeon General's office are very much opposed, and for excellent reasons, to offering commissions in the Medical Reserve Corps for temporary

service. It will be best in the future to give men who can only render such temporary service contracts instead of temporary commissions, so that there will be only two classes of men, first, officers of the Medical Reserve Corps commissioned for service during the war, and second, contract doctors employed for a comparatively brief period. Physicians accepted for the Medical Reserve Corps can take contracts for service until they have received and accepted their commissions when the contract will be annulled.

It will be seen that the contract system enables the government to make use of the large number of physicians who, from patriotic motives, are desirous of rendering some service, but feel themselves unable to accept a commission for service during the war.

It appears from the foregoing, which is a reproduction of a communication from the Surgeon General's Office of the United States Army, that the Surgeon General is now prepared, where such service can be made available, to accept part-time service of medical men for special duty, whose duties are such that they cannot accept a commission in the Medical Reserve Corps, or who have passed the age limit to acceptance in the service as a member of the corps. As we have pointed out in referring to the Senior Medical Military Association, there are or will be numerous opportunities whereby the patriotic ardor of physicians beyond the age limit to serve the good cause can be gratified.

THE INSTITUTIONAL CARE OF THE INSANE IN THE UNITED STATES AND CANADA.—The publication of the fourth volume of this work completes a task upon the successful accomplishment of which, all who have been engaged therein may be congratulated.

The work has far outgrown, both in size and scope, what was first contemplated, and has indeed, as Dr. Hurd said, in his report of progress, presented at the meeting in New York, "been an onerous task."

The history was undertaken by Dr. Hurd and his associates, at the request of the Medico-Psychological Association, in order to put into permanent form, while yet the data was available, a history of the origin and growth of institutional care of the insane in the United States and Canada. Much material for the formation of the history of institutional care in many states had already

been lost or destroyed. In many institutions so little regard was had for the preservation of historical data, that no accurate record had ever been made of the leading events in the progress of the hospital. The names of some of the medical heads of some institutions, particularly those under political control, were even unknown, and tradition and the memory of those in service, together with the records of institutional changes which have been published from time to time in this JOURNAL had to be called into service to make up the limited story which could be written.

In some instances, it is to be regretted that the official heads of institutions did not recognize the nature or value of the work which was in progress and gave but indifferent aid to the editor of the volumes. Their regret when they realize what their indifference has done in leaving the record of their hospitals incomplete will be unavailing.

Dr. Hurd and his associates undertook a tremendous task when they entered upon the compilation of the history which has now reached its completion. The American Medico-Psychological Association owes them, and particularly the indefatigable editor, Dr. Henry M. Hurd, a debt which it cannot pay. Posterity, as well as those who are now able to find in accessible and well arranged form the salient facts relating to the development of psychiatry in America, will long profit by their work.

As will be seen by reference to Dr. Hurd's final report printed in the proceedings of the recent meeting in New York, the subscriptions to the work have not been what was reasonably to be expected from the members of the Association, and the cost of publication has exceeded by a considerable sum the original estimates. We desire, therefore, to appeal once more to every member of the Association who has not subscribed to do so at once, and to every director of a hospital to see that he not only has the volumes in his own library, but that the hospital library purchases the work.

Book Reviews.

Tenth Biennial Report of the Board of Control of State Institutions for the Period ending June 30, 1916. (Published by the State of Iowa.)

This is a well-printed, well-bound volume of 405 pages. There are less than fifty pages of text, the balance being given over to tables galore. These appear to give a wealth of unnecessary and uninteresting detail, but with careful study one may find certain interesting statistics by laboriously making use of the index. Publications of the United States Census Bureau are the only rivals this book has in the number of its statistical tables. The general statement which opens the book would be much more interesting were some of the facts which are hidden in the tables incorporated in it.

Sixteen institutions are under the supervision of the Board of Control of which four are for the insane, having a population of 2318. These are undoubtedly given good care, and the Board by its recommendations shows that it is fully alive to the wisdom and importance of giving its wards the best possible treatment. From the few changes of superintendents that have been made it would also appear that the Board is free from pernicious political influences. It is unfortunate that so much that is good and interesting is not presented in more readable form.

W. R. D.

The Institutional Care of the Insane in the United States and Canada. By HENRY M. HURD, WILLIAM F. DREWREY, RICHARD DEWEY, CHARLES W. PILGRIM, G. ALDER BLUMER, and T. J. W. BURGESS. Edited by HENRY M. HURD, M. D., LL. D. Volume IV. Illustrated. (Baltimore: The Johns Hopkins Press, 1917.)

This volume, the concluding one of *The Institutional Care of the Insane*, is divided into three parts. Part IV is devoted to the provincial, corporate and private institutions of Canada. Part V to biographies of deceased workers in psychiatry in the United States, including also the biographies of some of the men who by their philanthropy have contributed to the care of the insane. Part VI comprises the the biographies in Canada and Newfoundland.

Where so much of interest is presented a notice which shall adequately reveal the character of the contents of a volume is most difficult to write. One is tempted to make extracts from the account of the experiences of this or that institution, to narrate how difficulties were overcome, discouragement fought down and sometimes despair conquered. The present-day heads of hospitals should read the accounts in this and preceding volumes

of the efforts of the men in the United States and Canada to overcome obstacles of which they have no conception gained from experience. In Canada as in the United States the record of some things which were done and considered proper to do, in the early days of psychiatry, is not by any means pleasant reading, but out of darkness toward light the men and women who have been workers among the insane have gradually struggled. Their views, their acts, their conclusions upon matters medical, are not for us to criticise; they were based upon the general intelligence of the age in which they lived. Unfortunately some of their ideas have been handed down by tradition among the laity and sometimes control the popular mind in its judgment of what is the best course to be followed in the care of the dependent insane.

No one can lay down this volume or any of its predecessors without having added something of value to his general knowledge, without having broadened his conception of the great field of psychiatric medicine.

The biographical sketches are most of them well done. Occasionally one wishes that a more intimate friend of the deceased had penned the sketch, and occasionally one feels that a clearer view of the aims and motives of the deceased had been possible. Again, and this of course is unavoidable, one misses a name from the list, of one whose work and virtues he would like to have included in the list of those whose lives have here found record.

To the gentlemen who have compiled from a mass of material a work which makes such good history and which places in enduring form data which were otherwise inaccessible to the mass of readers, much of which would soon be wholly lost to sight and memory—the profession of medicine and that part of the reading public interested in the history of philanthropy are under lasting obligations.

Social Diagnosis. By MARY E. RICHMOND, Director Charity Organization Department, Russell Sage Foundation. Author of *The Good Neighbor*. (New York: Russell Sage Foundation, 1917.)

The work, the result of years spent in the best kind of social service, is a distinct and valuable contribution to the literature of the subject.

The term diagnosis is used by Miss Richmond in the sense of a discriminating determination or recognition of the social condition of an individual, a family or a community, in order that conclusions may be drawn as to the remedy or remedies to be applied to improve that social condition.

The individual, of course, is the unit aimed at in most instances, but no individual exists who is not consciously or unconsciously influenced, lifted up or dragged down by other individuals. As Dr. Putnam, from whom the author quotes, says: "It is in each man's social relations that this mental history is mainly written, and it is in his social relations likewise that the causes of the disorders that threaten his happiness and his effectiveness, and the means for securing his recovery, are to be mainly sought."

Miss Richmond's book is written with the desire to help others to make a diagnosis—to have a discriminating knowledge of these "social relations" to the end, as a diagnosis is made in medicine, of relief or cure. Out of a

rich experience she has brought together a work comprising 28 chapters with three appendices, and a bibliography. The work is divided into three parts: Social Evidence, The Processes Leading to Diagnosis and Variations in the Process. Under these three headings, in various chapters, methods of diagnosis in social states are given with ample illustrative material.

The author does not propose to make social workers by text-book instruction any more than the author of a text-book on medical diagnosis would expect his readers to be experts in diagnosing heart or pulmonary lesions without clinical experience.

Over and over again she warns against hasty judgment—against slipshod methods. The first section, Social Evidence, dealing with the methods of approach, the nature and uses of social evidence, types of evidence, the risks involved in thinking, the risks involved from the thinker's state of mind, will be found of much value and interest to any intelligent reader, no matter how little interest he may have in social work.

The book should be in the library of every hospital and be freely consulted, not only by the social workers of the hospital but by the medical staff.

Abstracts and Extracts.

FERNALD, GUY G.: *The Mental Examination of Reformatory Prisoners.*
(*Journal of Criminal Law and Criminology*, September, 1916, pp.
393-404.)

Reformatory prisoners are apt to exhibit a significant change of mental attitude after a variable period of confinement, which renders them superficially at least more conformable to discipline and inclined to reasonable reflection. For this reason it is suggested that the mental examination be timed for the latter end of the prisoner's term when the reactions to reasonable restraints, orderly living and the institutional premium on well-doing have become manifest. "Most subjects make a truer showing in any interview after the first." Reasons are cited for the abandonment of mental tests for a less systematic method of examination as follows: (a) Under the former methods, the uniform application of even a limited series of tests was too time-consuming, or the results were unsatisfactory. (b) Some tests of any series were not well adapted to all subjects of a group. (c) No series of tests for general application can reveal character defects and personality asymmetries as well as this purpose may be realized by the psychiatrist's untrammelled excursions. (d) The subject is deprived by the inelasticity and cold formality of the prescribed tests, of the benefit of that personal, inspiring element in the interview which may be a potent psychic factor for the prisoner's welfare. It is suggested that an interview be so ordered as to measure the prisoner's capacity to draw or acquiesce in logical conclusions, particularly if disagreeable. While distasteful it may well be salutary that the prisoner should start his plan for the future with a conviction that he should admit his guilt to himself and to the examiner. The testing of this complex has not been brought to numerical scoring, yet the subject's reaction is illuminating. The striking characteristics of the segregable are readiness to falsify and egotism, both aspects of a general disregard for consequences. In classification, the accidental offender has ability and is relatively inexperienced in wrong-doing; free from grave character defects and will react well to the consequences of his error. The responsible offender also has good ability, but may show a character defect in his repeated lapses of conduct or inadequate reactions to social, moral and legal discipline. The alcoholic offends in or because of abuse of liquor but without marked evidence of mental deterioration. Recidivists cannot be classed as normal. They lack temperamental stability, foresight and the will to reform. Many are distinctly anti-social in attitude, excusing or defending their actions with sometimes skillful sophistries. Special emphasis is laid on the rapidity which information about any formal examina-

tion methods is diffused among prisoners. Tests must be devised and all laboratory procedure adopted with reference to this fact. The subject and examiner must be separated from such distracting sights and sounds as a ticking recording clock, rattling typewriter, apparatus of formidable appearance, numerous stimulus cards. An illustration is given of the interviewer's method of observing the logical reaction of the subject to the situation.

COXE, WARREN W.: *Grading Intelligence by Years and by Points*. (Journal of Criminal Law and Criminology, 1916, Vol. VII, pp. 341-365.)

After a brief historical account this paper presents a table showing the positions given the various intelligence tests by different revisers. Divergences are more marked in the upper years than in the lower. A general dissatisfaction is expressed with scales of this type, and a desire for one that will measure the development of each of the more important functions. Attention is called to important differences in the manner of presenting the tests, a number of examples of which are cited. The proper requirements of the scale for mental measurement are briefly set forth. The end-result of the paper is to favor the point scale system of grading rather than the year scale. It is especially emphasized that the point scale has possibilities for better standardization than the old scale. It appears much superior to the old scale for determining age level in the laboratory. Its one point of weakness seems in not giving definite enough information about separate mental functions, and thus not furnishing a picture of the subject's mentality.

PORTEUS, S. D.: *Mental Tests with Delinquents and Australian Aboriginal Children*. (Psychological Review, 1917, Vol. XXIV, pp. 32-42.)

The tests given are based on the Maze plan. Success requires "Prudence in action, forethought, and general mental alertness." The tests are graded from 3 to 13 years, and, although it is not claimed that they give a mental age for the subject, there is a close correlation between them and Binet-Simon results. In the first group of subjects, consisting of delinquent boys of 9 to 14 years, no boy passed a test above his chronological age and less than 25 per cent passed at age. Tables are given. It is felt that the tests bring out to a rather remarkable degree the differences in character of the superior to the inferior subjects. A second group of somewhat older delinquents shows none passing at age. Experiments with 28 aboriginal children showed a nearly normal distribution, but the tests become increasingly difficult for these children in the upper years, and bear out the view that in aboriginal children the period of mental development is comparatively short. Their performances were, of course, far better than those of the delinquents.

In a testable group of deaf children there was close agreement between the teachers' estimates of intelligence and the verdict of the tests. The girls on the whole do not test as high as the boys, a result which is at

least favored by the difference in training which the boys receive. It is felt that these Maze tests allow the deaf child to display his ability in a much fairer light than do the Binet or any other tests.

HAINES, THOMAS H.: *Feeble-Mindedness Among Adult Delinquents*. (Journal of Criminal Law and Criminology, 1917, Vol. VII, pp. 702-721.)

The Yerkes-Bridges Point-Scale examination was made with admissions to the Ohio Penitentiary during a five weeks' period. In all, 96 such records were obtained. Performance tests were made with four additional cases. Twenty-one of the subjects were negroes, though the state has only three per cent negro population. A table of offences is given, showing 19 sex, 48 property, 33 life. Another table shows the distribution of the offences among repeaters, foreign-born, negroes, young, feebly-endowed. A third table gives the average score of 87 convicts (13 omitted through lack of English knowledge). The average number of points is 77.1. Twenty feeble-minded and demented persons were found, and their offences are separately enumerated. Seventeen scored below 66 points, and a brief special account is given of each of these. Much emphasis is laid on the importance of mental examination in criminal diagnosis.

FERNALD, MABEL R.: *Practical Applications of Psychology to the Problems of a Clearing House*. (Journ. Criminal Law and Criminology, 1917, Vol. VII, pp. 722-731.)

An interesting comparative statement is given of the number of "feeble-minded" in an institution according to different criteria of feeble-mindedness that have been proposed, varying from 38 per cent to 100 per cent. A program for future progress is put forward. Additional tests for diagnostic purposes must be worked out with careful standardization, in order to guard against factors of communication, as well as "habituation to the tests through a long series of Binet experiences." For the widest usefulness a test should have large enough possibilities of gradation so that superior individuals may exhibit performance above the average, and for the lowest grade to deviate below it. Too easy or too hard tests may eliminate one or the other of these distinctions. There should be some tests involving memory, others based on ability to follow instructions, others requiring ingenuity in the meeting of new situations, etc. Supplementary to these are tests for specific capacities, which bear on the vocational problem.

SKINNER, CHARLES E.: *Point Scale Ratings of Ninety-Three Dependent Children*. (Psychological Clinic, 1916, Vol. VI, pp. 168-174.)

The Yerkes-Bridges-Hardwick Point Scale was given to 93 children in an institution for dependents, ranging in age from 3 to 17 years. Mental age was calculated from Yerkes' norms and the criteria of feeble-mindedness put forward by Goddard and by Pintner and Patterson. It is

felt to be clearly demonstrated that .80 is too high a limit for feeble-mindedness in intelligence quotient, and .75 is advocated. The method of Pintner and Patterson is quite highly commended. A table gives the following data for each child; the age, the score, the corresponding mental age, the years accelerated or retarded, and the diagnosis by both the Goddard and the Pintner and Patterson method. Using an IQ of less than .75 as a diagnosis of feeble-mindedness, we find 37.6 per cent of the cases fall in that group. The general result with the investigated children is to show a mental inferiority to public school children. It is also felt that the correlations found between the Intelligence Quotient and social status rest upon differences of endowment rather than training.

PINTNER, RUDOLF, and PATTERSON, DONALD G.: *A Comparison of Deaf and Hearing Children in Visual Memory for Digits*. (Jour. Exper. Psychol., 1917, Vol. II, pp. 76-88.)

There were tested individually 481 deaf children, pupils in the Ohio State School for the Deaf. Ages ranged from 7 to 26; the smallest number tested at any age was 15. All pupils of 19 or more were classed as adults. The series began with two digits and ended with seven. After each exposure of a series, the subject immediately recorded in pencil what he could remember. The memory span of the individual was counted as the highest series reproduced correctly. There is tabular and graphic presentation of the results, giving comparisons between oral and manual pupils, hearing and deaf children, deaf boy and girl, congenitally and adventitiously deaf. In summary, it is concluded that oral pupils are in general superior to manual; deaf children as a group have an abnormally poor memory span; adventitiously deaf children are in general superior to congenitally deaf; sex differences are not found.

PINTNER, RUDOLF, and PATTERSON, DONALD G.: *A Measurement of the Language Ability of Deaf Children*. (Psychological Review, 1916, Vol. XXIII, pp. 413-436.)

This is a study of Scale A of the Trabue Language Scale. The subjects were 575 deaf pupils. As the conclusions are summarized, the Trabue test is found an admirable instrument. Pupils in oral classes do somewhat better than pupils in non-oral classes. Tentative norms for oral and manual pupils are given. The language ability of the adventitiously deaf is somewhat superior to that of the congenitally deaf, provided the former have lost their hearing since 4 or 5 years of age. Only 6.4 per cent of the children reached scores above the 4th grade ability. It is recommended that classes for the deaf be divided into sections according to ability as measured by a combination of mental and educational tests.

CLARK, TALIAFERRO: *Mental Examinations of School Children*. (Public Health Report No. 358. United States Public Health Service.)

Mental examinations have been made of over 18,000 school children in four states, nearly all rural school children. Intensive studies were made

of the physical condition and school environment of retarded children, and various physical defects are described. Surveys have shown that 12 per cent of the population in certain sections of the country is afflicted with trachoma, and the mental retardation observed in these sections is very great. Hook-worm is also responsible for a considerable proportion, also nutritional disorders among which pellagra is mentioned. It was found that of the school buildings inspected 57 per cent were more than 20 years old, only 9.5 per cent had adjustable desks, 41 per cent were heated by closed stoves, 28 per cent were without aids to ventilation, and only 42 per cent had illumination from the right quarter.

The percentage of feeble-mindedness observed in these investigations varies according to locality from .3 per cent to 1.1 per cent. Physical underdevelopment was not found to be frequently associated with feeble-mindedness, but sensory defects and certain physical abnormalities were noted in large proportion. The presence of psychopathically inferior children in regular classes is undesirable, but they must not be thrown back upon the community. The school must be used for early recognition of the types for which special training is required. Emphasis is laid upon the desirability of having mental examiners with biological training, who will have more sense for the etiological factors in mental deficiency.

ENGLISH, HORACE BIDWELL: *An Experimental Study of Mental Capacities in School Children Correlated with Social Status*. (Psychological Monographs, 100, 1917, pp. 266-330.)

The author reviews his work to say that 10 tests were employed, related in varying degrees to memory, perceptual discrimination, analogical reasoning, rapidity of arm-movement, speed and accuracy of arm-movement under conditions of maximal attention, ability to divide attention or rapidly alternate it, ability to deal with space perceptions and comprehend conceptual relations. In all save the tests of rapid movement, the better social class showed striking superiority. The author is convinced that heredity plays a preponderating part in bringing this result about.

BRIDGES, JAMES W., and COLER, LILLIAN E.: *The Relation of Intelligence to Social Status*. (Psychological Review, 1917, Vol. XXIV, pp. 1-31.)

The literature on the relation of performance to social status is reviewed. The present experiments were made with 301 children tested in two schools of a very good and very poor neighborhood. The results corroborate the conclusion that sociological conditions have a considerable influence upon intelligence. This was more so in the case of boys. The girls of the poorer school are considerably superior to boys, but the boys of the better school are only in one age notable superior to the girls. The superiority of the better classes is most evident in tests involving higher mental processes, but also seen to a less extent in sensori-motor functions. The results are equally consistent with environment and inheritance theories. The issue of feeble-mindedness is intentionally avoided, but the paper contains some useful criticisms of the standards of feeble-mindedness.

Half-Yearly Summary.

CALIFORNIA.—The bill which was introduced at the last session of the legislature for the establishment of a psychopathic hospital in San Francisco, of which mention was made in the April Half-Yearly Summary, failed to pass. The other bill, appropriating \$250,000 for the establishment of a second colony for the care of the feeble-minded, to be located in Southern California, did pass. This is to be known as the Pacific Colony.

—*Agnews State Hospital, Agnews.*—The last legislature granted an appropriation of \$30,000 for the erection and equipment of a cottage for women patients, also \$45,000 for a cottage for men patients who are grouped as workers.

—*Southern California State Hospital, Patton.*—The last legislature made an appropriation of \$60,000 for building purposes, of which \$45,000 was for a cottage for disturbed patients, and \$15,000 for a Nurses' Home and an industrial building.

—*Stockton State Hospital, Stockton.*—It is expected to begin the construction of a cottage for disturbed patients to cost \$45,000, and of a tubercular pavilion to cost \$10,000 in the near future, the legislature of 1917 having appropriated these amounts. An appropriation of \$60,000 was also made for the purchase of over 400 acres of land for farming purposes.

—*Napa State Hospital, Napa.*—An appropriation of \$58,000 was granted by the last legislature for the construction and equipment of two cottages at this hospital.

—*Norwalk State Hospital, Norwalk.*—This hospital is the newest of the state hospitals, is located about 20 miles southeast of Los Angeles, and has been in operation in a small way for about two years. There are at present only four fireproof buildings and two small bungalows, and the total population is but 260.

The recent legislature made a number of appropriations for new buildings: \$135,000 for the construction of three cottages for patients, \$50,000 for the construction of an administration building, and \$10,000 for the construction and furnishing of a Superintendent's residence. The cottages will be of fireproof construction, one being for female patients with a capacity for 100 beds, a smaller one for the reception of female patients with a capacity of 70, and the third a receiving cottage for men patients to accommodate 70. These last two will be equipped with hydrotherapy, operating rooms, etc.

A pathologist has been added to the medical staff and a nucleus has been formed for what is hoped will be a good, high-class laboratory.

COLORADO.—*Colorado State Insane Asylum, Pueblo.*—By an act of the legislature the name of this institution has been changed to the Colorado State Hospital.

CONNECTICUT.—A bill was passed by the last legislature to consolidate the Connecticut Colony for Epileptics, at Mansfield Depot, and the Connecticut Training School for Feeble-Minded, at Mansfield, into one institution to be called the Mansfield State Hospital. During the last session of the legislature the Connecticut statutes concerning the commitment of the insane were radically amended, although the desired object of complete state care was not obtained, owing to the expense involved, and the uncertainties as to the drafts to be made upon the state treasury during the war. However, the new law provides that the state comptroller shall collect all moneys due for the maintenance of patients in state hospitals from whatever source obtained. The comptroller will then pay the hospital a lump sum each month, covering all expenses incurred. The new law also provides that all orders of commitments shall be upon a uniform blank prescribed by the attorney-general. Provision is made for state hospitals, as well as other hospitals for the insane, to send properly trained attendants and nurses to bring committed patients to the hospital. The period of 48 hours, for which emergency commitments have heretofore been valid, has been extended to 10 days, while in the case of voluntary admissions, the patient must now give 10 days' notice, instead of 48 hours', when desiring to leave the hospital. The new law also provides for greater flexibility in the transfer of patients from one state institution to another.

—*Connecticut Hospital for the Insane, Middletown.*—The third floor, or attic, of the Brooks Farm House has been altered to form a dormitory, which will house 16 additional patients, thus rendering the Brooks Farm the largest of the three farm colonies of the hospital. Other improvements at the Brooks House include a new fire escape, the piping of spring water to the house, the situation of the spring allowing gravity feed, while a small septic tank is about to be constructed to care for the sewage.

Extensive repairs have been made upon the hospital coal dock, including the construction of concrete piers extending above high water mark, and concrete foundations for both coal tramway and freight tramway.

Two food elevators are now in process of installation, extending from the main kitchen to the congregate dining room. Over \$17,000 has been expended for new equipment for the main kitchen and laundry, replacing old and worn-out equipment which required an excessive amount of steam to operate.

Four verandas on North Wing, Main Building, have been enclosed with glass, forming satisfactory sun-parlors, and adding needed day room space. Heat has been installed therein, so their use may be continued during the cold weather.

Burr Cottage No. 2 has undergone extensive alterations, and is now used as a residence for the Assistant Superintendent.

Two continuous baths have been installed on the women's reception service.

Eighteen acres of woodland, bordering reservoir No. 2, were purchased for the purpose of protecting the water supply.

A chicken plant has been established at the Silver Mine Farm Colony, and the hospital now possesses over 2000 chickens. Although the high price of food renders the poultry industry less profitable than in normal times, the new project has constantly shown a fair margin of profit.

Over 300 acres of land have been under cultivation the past summer, this being approximately 20 acres more than ever before. Nearly 10 tons of hay were produced from a portion of the lawns upon which the grass was allowed to grow.

A number of the occupational classes have been engaged in Red Cross work, such work serving to induce a certain number of patients to occupy themselves, who before had refused to join the classes. On the initiative of the Training School for Nurses, the officers and employees of the hospital raised over \$200 for the Red Cross.

An exercise ground adjoining the ball field was prepared for the physical culture class, and apparatus provided for basket ball, croquet, etc.

By giving a certain number of patients special training for dining-room work, and utilizing their services, it has been possible to reduce the number of employees in the congregate dining room from 24 to 10.

A new class in habit training has been formed in the South Hospital, it being composed exclusively of disturbed and untidy patients, 14 of whom were formerly in constant seclusion for periods ranging from one to ten years. By means of hydrotherapy and intensive personal attention, seclusion has been abolished, the condition of the patients has been greatly improved, and they are now all more or less industrious.

ILLINOIS.—The last legislature enacted a Civil Administrative Code which divides the civil administration of the state government into nine departments, viz.: Department of Finance, Department of Agriculture, Department of Labor, Department of Mines and Minerals, Department of Public Works and Buildings, Department of Trade and Commerce, Department of Registration and Education, Department of Public Health, and Department of Public Welfare. The last is charged with the administration of the state hospitals, prisons, etc., and has the following officers: Director, Assistant Director, Alienist, Criminologist, Fiscal Supervisor, Superintendent of Charities, Superintendent of Prisons, and Superintendent of Pardons and Paroles.

Dr. William J. Hickson, in a report made of the result of examining mentally those individuals who have been brought repeatedly before the court of domestic relations, juvenile, morals, and other courts, states that practically all of these are feeble-minded or cases of dementia praecox. He suggests that a state colony be established for the care of such cases,

and that they be scattered in groups under proper restrictions and supervision to build roads or work on other state improvements.

The sixth annual meeting of Alienists and Neurologists of America was held in the Hotel La Salle, Chicago, July 10-12, 1917, when a number of interesting papers were read by physicians and social workers from all parts of the United States. The majority of these have been collected and published by the secretary, Dr. Bayard Holmes, and make a very interesting volume. Dr. George A. Zeller, Superintendent of Alton State Hospital, was the presiding officer.

—*Chicago State Hospital, Dunning.*—Four cases of suspected typhoid fever were reported at this hospital on July 16, 1917, so that an investigation was begun.

—*Watertown State Hospital, Watertown.*—A clinic on nervous and mental diseases was held at this hospital, August 23, 1917, under the auspices of the Iowa and Illinois Central District Medical Society.

INDIANA.—A bill authorizing the voluntary admission of patients to the state hospital which was introduced at the last legislature failed to pass.

A purchasing committee composed of a member of the board of trustees of each state institution has been formed to arrange for the joint purchase of supplies for state institutions when such seems expedient.

—*Eastern Indiana Hospital for the Insane, Richmond.*—The last legislature made an appropriation of \$33,000 for the erection of a new cottage for women patients, and of \$25,000 for colony extension.

—*Indiana Village for Epileptics, New Castle.*—An appropriation of \$200,000 was made by the last legislature for the construction of new buildings. There are planned two cottages for male patients to accommodate 20, four cottages to accommodate 35 females, and two cottages to accommodate 20 females.

—*School for Feeble-Minded Youth, Fort Wayne.*—An appropriation of \$12,700 was made by the last legislature for a colony farm, heating plant, and equipment at this institution.

IOWA.—The last legislature passed a bill establishing the Iowa Child Welfare Research Station and appropriated \$25,000 annually for its expenses. This is to be connected with the state university and will investigate the best scientific methods of conserving and developing the normal child, disseminating information acquired, and training students in such work.

A bill was introduced by Representative Klinker at the last session of the legislature appropriating \$150,000 for the establishment of a psychopathic hospital at Iowa City, but it failed of passage.

—*Clarinda State Hospital, Clarinda.*—An appropriation of \$40,000 was made by the last legislature for the erection and equipment of a hospital for tuberculous patients.

—*Independence State Hospital, Independence.*—A pavilion for the care of tuberculous patients is made possible by an appropriation of \$40,000 made by the legislature of 1917.

—*State Hospital for Epileptics, Woodward.*—This institution has been completed and was opened for the reception of patients on September 3, 1917. There are 10 pavilions giving accommodation, including the staff, for 150.

KANSAS.—A new Board of Administration has been created consisting of three members. This will have charge of all charitable, correctional, and educational institutions under state control. An executive officer is to be appointed.

—*Larned State Hospital, Larned.*—This institution which was created by the legislature of 1913 is still in the process of construction. The last legislature made an appropriation of \$35,000 for the construction and equipment of an additional cottage, \$7000 to construct and equip a kitchen, and \$5000 for a residence for the superintendent.

—*East Louisiana Hospital for the Insane, Jackson.*—The suit brought by Dr. Clarence Pierson, Superintendent of this hospital, against the New Orleans *Times-Picayune* for \$100,000 damages on account of the publication of articles defamatory to him and his conduct of the institution, has been concluded. On July 16, 1917, Dr. Pierson was awarded a verdict of \$7500 and court costs by the Civil District Court of New Orleans.

MARYLAND.—At a meeting of the Maryland Psychiatric Society held May 10, 1917, a committee was appointed to cooperate with the state and military authorities in preparedness measures. Every member of the society present volunteered to act as a consultant should his services be desired by the military surgeons. It was also decided to advise that the state offer the incomplete building at Spring Grove State Hospital for a military psychiatric hospital and to request the legislature at its coming special session to pass an appropriation to complete the building. It was also decided to ask for an appropriation to erect a convalescent hospital on the grounds of Springfield State Hospital at Sykesville.

—*Springfield State Hospital, Sykesville.*—The packing house which was erected last year was enlarged so as to permit of canning a larger quantity of the farm products than ever before. Forty-five women patients were detailed to assist in this work.

—*Sheppard and Enoch Pratt Hospital, Towson.*—A pergola is being erected in the formal garden west of the Recreation Building. The foundations, pillars, and capitals are of white concrete, and are being made under the direction of a convalescent patient assisted by a laborer. Already it can be seen that the beauty of the grounds will be much enhanced.

Both men and women patients have been actively engaged in Red Cross work and a chapter has been organized. About one hundred comfort kits were made and about a dozen coverlets, besides a large number of small scrap books and other articles. At present the chapter is knitting sweaters, helmets and other things which have been especially requested by the Red Cross.

An exhibit was recently held of woven coverlets which brought forth some very interesting and beautiful specimens. The Allanstand Cottage Industries of Asheville, N. C., very kindly loaned a most interesting exhibit of patterns.

MASSACHUSETTS.—*Danvers State Hospital, Hathorne.*—A new home for attendants and married couples has been completed and will be occupied soon. It is connected with the main building by a tunnel which was built wholly by patients, assisted and directed by attendants and regular employees.

The new storehouse and service building which is adjacent to the railroad track will be in use this winter, will save the rehandling of supplies, and will release a number of small rooms which can be used for other purposes. The storehouse is of first-class construction.

—*Gardner State Colony, East Gardner.*—A new building for 10 disturbed women will be opened October 1. A new farm cottage for 15 men will be opened October 15.

Two internes, fourth-year students of the Tufts Medical School, were employed here during the summer months.

Owing to the scarcity of farm help there have been sent out, in two instances, men patients to assist the farmers in harvesting their vegetables. For this work the patients received pay which is deposited at the office for them to spend as they desire. This encourages the patients and assists the farmers.

The third annual cattle show and fair of the Colony was held September 19 and 20. September 19 was for patients only, September 20 for the public. There are several reasons for holding this annual fair. The first day for patients gives a day at the end of the farming season when the products of the farm, industrial rooms, etc., are brought together for display and the day given over to a real good time in the shape of a county fair. Previous to holding the fair, 4th of July and Christmas were the two big days of the year, but now the annual fair day holds first place. Flying horses were provided and as can be imagined were crowded all day. The public day is of special value in linking up the hospital with the community and making the people in this community take a special interest in the hospital. The

public, whether with or without reason, gain the impression that they are not wanted at hospitals as visitors, or, because of the nature of the hospitals, do not care to visit. It is therefore up to the hospital to bring about interest in the community. There is no way that this can be done better than offering something at the institution which will bring people there where they may see what is going on, which is certain to lead to the interest desired. The carrying through to a successful conclusion of a fair such as we have held, means that every one of the 150 employees serving on committees has to work very hard indeed, but this work results in team work and a far better feeling among the employees. It would be an excellent thing for this, if for no other, reason. This annual fair is a stimulus and stimulates the interest of the community as nothing else has done that has been tried. The proceeds of the public day, at which admission is charged and articles placed on sale, are used for entertainment for the following winter. Last winter, from the proceeds of the second annual fair, some excellent entertainments were held, which, otherwise, with the maintenance appropriation, could not have been enjoyed. The program of the second or public day follows:

- 10.00 A. M. Ball Game. Fitchburg Team *vs.* Gardner State Colony Team.
- 9.00 to 12.00 A. M. Special Features and Midway Attractions.
- 1.30 P. M. Concert by Colony Orchestra.
- 2.00 P. M. Parade of Decorated Floats led by Drum Corps and Marshals, forming at Fairview Cottage.
- 2.00 to 5.00 P. M. Special Features and Midway Attractions.
- 2.30 P. M. Entertainment by Lotus Male Quartet of Boston.
- 3.00 to 5.00 P. M. Dancing in Pavilion at Beech Grove.
- 3.30 P. M. Ploughing Matches, Contests between draft horses, oxen, etc., in field in front of Belcher Cottage.
- 3.30 P. M. Address by his Excellency the Honorable Samuel McCall, Governor of Massachusetts.

—*Grafton State Hospital, Grafton and Worcester.—Grafton Department.*

—As stated under the Worcester Department, the administrative force has been transferred from that department to the Grafton Department, and at present is located in the administration building. All of the buildings at this department that have been under the process of construction for the past two years or more, have been opened, furnished, and occupied.

A new and permanent road and cinder walks, as well as a lawn, have been constructed in front of the administration building; also concrete curbing has been installed bordering the lawn and sidewalks leading from the highway to the administration building.

The hose room has been opened in the employees' quarters as headquarters for the fire department at Grafton, and is equipped with a hose wagon, fire apparatus, chemical engine, fire extinguishers, and all other fire apparatus available for the protection of the buildings of the various groups. A permanent fire department has been organized and drills are held at least once a month.

As the Grafton Department is so far removed from the city it has been found necessary to furnish employees at this place with some facilities for recreation and amusement during the hours not on duty. With this object in view, the basement of the Male Nurses' Home has been used for quarters for the Employees' Club of the Grafton State Hospital, which was organized a few months ago. One room is occupied as a pool room, and a store has been opened by the club, which will supply the members and other employees with tobacco, candy, and other articles which will add greatly to their comfort and convenience. The club is supported entirely by contributions of the employees and will be maintained by them.

A steam line connecting the Elms Group with the main power plant has been installed and is in operation. The two boilers that furnished heat for the Elms Group have been transferred to the main heating plant and are about to be connected. A new concrete chimney, 150 feet high and 7 feet wide, has been completed and the heating plant generally remodelled.

As stated under the Worcester Department, the steward's department was transferred to Grafton, and at present occupies the store house building. All of the supplies for the institution are now issued from this new storehouse.

The machinery in the carpenter shop at Summer Street has been removed to the new shop building at Grafton, and at present all the new work from this department is being turned out from the new carpenter shop.

The old blacksmith shop has been abandoned and the blacksmith is now installed in a new room in the basement of the carpenter shop building.

The building known as Pines A building has been remodelled for an infirmary ward, part of the upper floor of which is used for the female tubercular patients. The male tubercular patients are being kept on the upper floor of the building known as Elms D, the lower floor of which is occupied by general infirmary patients.

The bakery has been changed and at present occupies the part of the power house formerly used as a carpenter shop, and at this department all the baking is done for the institution.

The Willows farmhouse is now being rebuilt and remodelled.

There has been installed an operating room on the upper floor of Pines B building, in which all of the major and minor surgical work is being done for this department.

In addition to the above changes and improvements, many of the buildings have been repaired and repainted, and there has been a general improvement about the grounds, such as building walks and terraces which add greatly to the appearance of the institution, as well as comfort and convenience to both employees and patients.

—Worcester Department.—Several of the wards in the building at Summer Street, Worcester, have been painted and generally repaired. A number of the spray rooms have been renovated and repainted. The chapel has been redecorated and repainted. Linoleum has been laid upon most of the wards. The building occupied heretofore by the carpenter shop has

been renovated and remodelled and repainted; the upper floor has been made over to take care of some of the industrial work which heretofore had been carried on in the day rooms of the male wards, such as the weaving and tailoring departments. It is the intention, in the near future, to remodel the lower floor of this building for a mortuary and a room for doing autopsies and rooms for other general laboratory work.

The greenhouse has been repaired to a certain extent, and repainted. There has been installed one new heater and another is in the process of installation.

The refrigerators adjoining the kitchen have been furnished with a cement roof. The refrigerators, heretofore, have been leaking badly, but at the present time are perfectly dry. The walls, flooring, and ceiling of the refrigerators themselves have been torn out, and new insulation installed which puts them in first-class condition.

The bakery, which up to a few months ago had been doing the baking for this department as well as the Grafton Department, has been transferred to the Grafton Department, where all the baking is done for the institution.

The old-clothes rooms, which were located on several of the wards, have been torn out, and by doing so has added to the space of the day rooms. This change also gives the wards a very pleasant appearance.

The laundry at the Summer Street Department which, heretofore, has been quite unsatisfactory, has been furnished with a new machinery outfit. A metal ceiling has been installed in the wash room. It has been repainted and is in every way very satisfactory.

Up to within a few months it has been necessary for a number of the patients to sleep on the corridors on mattresses. To prevent this, the excess of patients above the normal capacity has been transferred to the Grafton Department, and no patients sleep upon mattresses unless it is necessary for medical or surgical reasons.

An operating room has been installed on Ward 8, which was very necessary in doing properly the treatment for general paresis and brain syphilis. At the present time there is being done, in addition to the usual intravenous and intraspinal treatment, treatment of cases by the intraventricular method.

The front entrance to the institution has been repainted, also the general offices at this department.

The administrative and steward's departments have been transferred from the Worcester Department to Grafton, this being quite essential, as more than two-thirds of the patients are at present located at the Grafton Department.

MINNESOTA.—*Hospital Farm for Inebriates, Willmar.*—Sixty chronic insane patients were transferred to this hospital, August 1, 1917, from several of the state hospitals for the insane. They are living in two cottages recently erected for them.

MISSISSIPPI.—*East Mississippi Insane Hospital, Meridian.*—Two Heine water tube boilers have been added to the heating plant. The boiler room has been enlarged and an electrically driven fire pump has been installed.

NEBRASKA.—*Hospital for the Insane, Lincoln.*—A special appropriation of \$143,000 has been made for new construction and other improvements at this hospital.

—*Norfolk State Hospital, Norfolk.*—The last legislature made an appropriation of \$117,000 for new buildings and other improvements, and \$12,000 for the purchase of farm lands.

—*Nebraska State Hospital, Ingleside.*—A number of improvements will be made with the special appropriation of \$25,000 which was made by the last legislature.

—*Institution for Feeble-Minded Youth, Beatrice.*—An appropriation of \$63,000 was made by the 1917 legislature for the construction of a new cottage for girls, an addition to the hospital building, and the construction of a new well and improvements in the equipment of the power house.

NEW HAMPSHIRE.—By a reorganization of the Board of Control it will consist of five instead of ten members as heretofore. The governor is also made an ex-officio member.

A bill has been passed authorizing the sterilization of an individual by any surgeon, provided the subject, his parents or his guardian give consent.

Recent legislation permits the voluntary admission of mental cases to the state hospital.

NEW JERSEY.—By recent act of legislation there will hereafter be two women members of the boards of managers of the state hospitals in addition to the present members.

Two legislative inquiries are to be made. The one to investigate conditions in the state charitable institutions and to suggest improvements in the present plan. The object is to ascertain if a central board of control is desirable. The second inquiry provides for an examination and classification of all prisoners now confined in the State Prison at Trenton. For this purpose \$5000 has been appropriated.

—*New Jersey State Hospital at Morris Plains.*—The nursing corps and other branches of the hospital service have been seriously reduced by drafts and enlistments.

The Board of Managers has been increased from eight to ten members by the appointment of Mrs. Agnes Cromwell of Mendham and Mrs. Elizabeth H. A. Harris of Glen Ridge.

Two annexes have been added to the Dormitory Building, each accommodating 70 patients and the nursing complement, for men and women patients respectively.

A new dining room has been provided in the basement of the Dormitory Building for the patients occupying the new annexes.

An additional silo has been provided for the conservation of green fodder for the dairy herd.

A one-sixth mile track for training and contests has been constructed on the athletic field.

An extension has been made to the Fire House with dormitories accommodating 27 employees.

The laundry equipment has been augmented by a new washer of brass construction with all modern improvements, a dry room tumbler, two extractors and four garment presses, all the latest creations in laundry machinery.

Syphilodol has been introduced in the treatment of patients but not to the extent or duration positively to determine its efficacy.

Plans are in the making for a garage of sufficient capacity to accommodate the automobiles at the institution and it is to be constructed of concrete blocks made by the patients in the Industrial Division of the Medical Department.

NEW YORK.—The most important legislation connected with the insane is the passage of the Sage Bill which creates a Hospital Developing Commission. The commission will consist of the State Engineer, Chairman of the State Hospital Commission, State Architect, Chairman of the Senate Finance Committee, Chairman of the Assembly Ways and Means Committee, one member of the legislature who shall also be a minority member of one of the financial committees of the legislature, and two members to be appointed by the governor. The commission is to examine each site of hospital development in the state now owned by the state or which may later be acquired; to investigate the capacity of the present state hospital buildings; to consider the future policy of the state in regard to the care of the insane; to adopt a general plan of hospital development; to estimate the probable cost of the plan; to submit a comprehensive plan for the development of each hospital site; to recommend to the legislature each year an expenditure equal to one-tenth of the cost of the plan when completed; and to investigate the problem of the proper care of the feeble-minded.

The bill also carries appropriations of \$99,254.85 to Utica State Hospital for construction, with an additional authorization of \$950,745.15, and \$100,000 for Middletown State Homeopathic Hospital, with an additional authorization of \$269,000.

Governor Whitman has announced his intention of having every condemned prisoner examined by alienists at a considerable period prior to the time set for execution. He is moved to this step on account of the many attempts to stay the execution of condemned prisoners on the ground of insanity. A commission has been appointed to examine the prisoners awaiting execution in Sing Sing Prison, consisting of Drs. Chas. W. Pilgrim, Russell F. Kieb, and George A. Smith.

—*Binghamton State Hospital, Binghamton.*—The new building, "Wagner Hall," was opened on June 16, 1917, when 40 women patients were transferred from the farm cottage, "Morningside," heretofore occupied by

women, to make room for men patients in that cottage, who will assist with the work on the farm. The remainder of patients who will occupy this new building, to the number of 250, were received by transfer from the metropolitan district.

Contracts have been awarded for the construction and equipment of an addition to the laundry, for which an appropriation was obtained a year ago; the addition is nearly completed and a large part of the new equipment is on the hospital premises and will be placed in position for service in the near future.

Reconstruction of the ward known as No. 6, in the Main Building, is now progressing and will soon be completed.

On April 25th, a public meeting in the interests of the mental hygiene clinic connected with the hospital, was held in the City Library of Binghamton. This meeting was addressed by Mr. George A. Hastings, Executive Secretary of the Committee on Mental Hygiene of the State Charities Aid Association of New York, the Superintendent of the hospital, Dr. Charles G. Wagner, and others. The mental hygiene clinic above referred to, was opened in the city of Binghamton on May 7, 1917. This clinic is held each Monday afternoon from two to four o'clock, and a large number of patients have availed themselves of it, thus demonstrating its urgent need.

On May 15th, the Binghamton Academy of Medicine held a meeting at the hospital, at which members of the hospital staff read papers and presented cases illustrating certain psychoses.

Our summer camp for convalescent patients was opened on June 5th, where patients from the hospital have enjoyed outings of two weeks at a time during the summer. This camp will be occupied by patients until weather conditions make it necessary to close it for the winter.

The graduation exercises of the school of nursing connected with the hospital, were held in the assembly hall on the evening of June 20, 1917. The class was addressed by Mr. Everett S. Elwood, Secretary of the State Hospital Commission, Albany, N. Y.

On August 29, the 26th annual field meet was held on the hospital grounds. The exercises were participated in by both patients and employees and much enjoyed by all.

—*Brooklyn State Hospital, Brooklyn.*—The institution is very greatly overcrowded, but it is hoped to obtain relief at an early date. There is under construction, and to be soon completed, a reception hospital and a building for the care of the chronic type of patients. The reception hospital will accommodate about 150 patients, while the building for the chronic type will accommodate 450.

Foundations for a new store house and cold storage building have been laid. A large number of repairs have been accomplished during the last year. The domes of the main building have been renewed and painted. A large quantity of flooring has been laid and a number of the wards have been repainted.

A number of cottages at Creedmoor are being remodelled and made ready for occupancy, and it is expected shortly to house at least 150 patients at this branch.

This hospital has been visited during the year by the State Finance Committee, the State Hospital Development Commission and the State Hospital Commission, and it is the consensus of opinion that the present old building should be razed and new ones built. There is planned a new and modern psychopathic hospital that will accommodate the needs of this portion of Greater New York.

When plans have been consummated, this site will accommodate about 2100 patients, while at Creedmoor plans are in contemplation for about 2500 patients.

The medical service is very active at this institution. At least 51 per cent of the cases admitted are of the feeble and exhausted type, or of the very acute maniacal type, and are brought in on stretchers. Those who are physically able are sent to Kings Park. The admissions here during the year were 626.

Beginning July 1st, we organized a school for male patients and a male instructor was appointed. It is hoped to obtain very beneficial results from the re-education of certain cases.

In August, 1916, a social worker was appointed who has been of great benefit to the institution and to the paroled patients. She visits all patients who are paroled, attends the clinics, inspects environmental conditions, obtains positions for recovered patients, and assists in obtaining proper histories for the physicians.

Three outdoor clinics are held weekly, one at the Brooklyn State Hospital, one at the Williamsburg Hospital on Saturdays; and one at the Long Island College Hospital on Fridays. These clinics are of great value, as it is through them that information is spread that is of great use to the general public. The present census is 925; the certified capacity is 637, and 70 patients are on parole.

At the east of the institution there is an old potters' field which has been used for years for the burial of the poor of Kings County. This land was turned over to the state two years ago, and it is now proposed to construct buildings on this area. Therefore the Charities Department of the City of New York was requested to remove the bodies buried there by that department during the last two years, and several hundred bodies were taken away during the summer.

—*Manhattan State Hospital, Wards Island.*—The two new buildings, one for 150 men patients known as "Mabon Hall" and the other for 200 women patients known as "Keener Hall" have been completed and are now occupied. Both buildings are used for the reception services.

During the months of April, May and June there was a serious epidemic of typhoid fever at this hospital with a total number of 48 cases. There were six deaths. All of these cases were confined to a group of 600 patients consisting of the chronic deteriorated classes. It was thought the infection

was introduced by means of infected food brought by visitors to patients. About 60 patients of the group assisted in serving or waiting in the dining room which was common to all of them, and it has been thought that the infection was spread through this means. The cases were all isolated in Camp E under the care of registered nurses who were graduates of the Training School but who had taken up private work in New York City. These were employed to care for the patients in the camp. In addition the New York City Health Department detailed three or four of their nurses to assist in taking temperatures. At this time this hospital was seriously handicapped in the way of nurses and attendants, having about 40 vacancies. The City Department of Health rendered most valuable aid and co-operation, also the State Department of Health, in the management of the epidemic. All patients and employees were inoculated with typhoid vaccine and the stools of all patients in this group were examined, this work being done at the laboratories of the City Department of Health. All recent admissions to the hospital now are inoculated except possibly a few who are not in physical condition to receive this treatment. It might be mentioned here that all suitable cases are vaccinated against smallpox at Bellevue Hospital before being transferred to this hospital. At the end of the fiscal year (June 30, 1917) the epidemic was at an end. However, a few weeks ago two isolated cases developed typhoid symptoms, although they had been inoculated with the others. They came from the group of buildings where the epidemic first started. It is a gratification to be able to say that not one of the nurses or other employees contracted the disease. By arrangement with the State Hospital Commission and Dr. George A. Smith, Superintendent of the Central Islip State Hospital, during this epidemic which was confined entirely to the women's division, women patients were received for six weeks or two months at Central Islip.

This hospital is very much handicapped in usefulness in the care of patients due to the large number of vacancies for men and women attendants at the present time. It is impossible to make proper classification and the wards that are now occupied are being managed, in regard to nursing force, at the lowest possible limit of safety. It is understood, however, that other institutions are also having to contend with the same difficulties.

—*Middletown State Homeopathic Hospital, Middletown.*—Plans are under preparation for the construction of a cottage to accommodate 30 additional patients at the Comfort Farm colony, and for a modern dairy barn. It is expected that the barn will be constructed by the hospital mechanics, following plans suggested by the New York State Agricultural Department and prepared by the Department of Architecture.

An addition to the piggery is already under way.

The equipment of the hospital will be increased by a building for tubercular patients, \$10,000 being immediately available with which to begin this work.

The new power plant has been formally accepted.

—*Rochester State Hospital, Rochester.*—An addition is being constructed to the men's chronic and industrial building for the accommodation of 36 more patients.

A four-inch water-pipe line is being replaced by an eight-inch line which will provide for better fire protection in the barns and other outbuildings.

Efforts to increase the yield of the farm lands during the past summer are giving good results. In this connection 102 extra acres of farm land located near the hospital have been worked on shares.

—*Utica State Hospital, Utica.*—During the past six months there has been no new construction of importance and no extensive repairs in this institution.

In March an epidemic of measles made its appearance in the hospital. In all there were 16 cases and it is rather curious to note that 15 of these were among the employees. The disease was of mild type and the epidemic was soon controlled.

The Medical Society of the County of Oneida met at the institution in April. Papers on psychiatric subjects were read by different members of the staff, and several patients were presented at a clinic.

In May the hospital received a transfer of 51 male patients from Manhattan State Hospital.

In July the recently appointed State Hospital Development Commission met in Utica, inspected the hospital and considered various matters preparatory to the construction of a new hospital on what is known as the Marcy Site.

Overcrowding is steadily becoming more pronounced. The census has increased something over 100 patients during the past six months and at the present writing is 1827. The parole list averages 110.

—*Willard State Hospital, Willard.*—Thirty-five women patients were transferred from the Central Islip State Hospital April 11, and 65 men from the Manhattan State Hospital April 24. A further transfer of 21 men and 21 women was made August 29.

A male patient was struck by lightning and instantly killed September 19, while on his way from the grounds to the ward. Another patient, who stood near him, received a severe shock and was unconscious for nearly an hour.

The annual Field Day was held September 22, and was largely attended by visitors from the surrounding country. There was an exhibit of products from the farm and garden, and articles made in the various industrial and mechanical departments, which attracted much interest on the part of the visitors.

The meeting of the Committee on Mental Hygiene was held at the hospital May 4, when reports from patients at home on parole were made by individual members.

The graduating class of the School of Nursing comprised six men and fifteen women. A reception and dance for the class was held September 5.

A meeting was held at the hospital, September 13, of the Hospital Development Commission, the State Hospital Commission and the Board of Managers, at which time the needs of the hospital were discussed. These include a reception hospital for acute patients; tuberculosis hospital for 45 men; new bathrooms and lavatories for the main building; employees' home for 60 women; and a water filtration plant.

—*The Craig Colony for Epileptics, Sonyea.*—Two one-story brick dormitories of a simple type of construction, each accommodating 60 colonists, are practically completed but cannot be occupied until an appropriation is made for furnishing these dormitories and for erecting in their vicinity an adequate kitchen and dining-room cottage.

A low dam with retaining walls has been built in the creek adjoining the pumping station, part of the plan to arrange so that shortly the dual water supply system will be abolished and the entire supply obtained from Kishaqua Creek, this supply to be softened and chemically treated for sanitary reasons.

A cold-storage plant of modern size adjoining the Colony general store building is about ready for occupancy.

Two large root cellars, one in the Colony garden and the other in the main barnyard, are in the course of construction.

NORTH CAROLINA.—By recent act of the legislature there is to be but one board of management for all of the state hospitals for the insane. A purchasing committee is also created for these and other state institutions.

Appropriations have been made to the state hospitals as follows: \$200,000 to the Hospital at Raleigh, \$200,000 to the State Hospital at Morganton, and \$125,000 to the State Hospital at Goldsboro.

NORTH DAKOTA.—A new state hospital is planned to be located at or near Rugby in Pierce County.

—*State Hospital for the Insane, Jamestown.*—There has been constructed in the last two years a large receiving ward building with a capacity of approximately 300 patients, thoroughly equipped with all modern facilities for the treatment of acute cases of insanity. There is installed in this building hydrotherapy apparatus, a modern operating room in which two gynecological operations a week have been done, and in which building every need of the patient is cared for. It contains toilet, bath, dining and clothes room facilities, and is so arranged that the completed building is virtually two buildings, inasmuch as the acute cases of mental diseases afflicting women are handled on one side of the building and the same mental difficulties afflicting men are handled on the opposite side of the building. It is not necessary for any patient who is cared for in this building to leave its confines to have every necessity provided for. It is possible to segregate the tuberculous patients, and the decrease in pulmonary difficulties has been decidedly noticeable. A new office and dormitory

building has been constructed in which the administrative work of the institution will be transacted and the top floor of which will be occupied by the official staff. A superintendent's residence has been also constructed and numerous improvements made in landscaping and beautifying the grounds.

There have been the usual difficulties that all institutions are experiencing to secure competent help for this service, and we have had to place married couples on male wards in order to secure sufficient help to transact the usual routine of the institution. The service has been badly crippled because of lack of competent help. At the present time the institution is short two physicians and approximately 20 employees that would be necessary if the full program of the institution were carried out. A number of employees have been lost through draft and probably more will go in the near future.

There have been no radical departures from the usual institutional treatments for mental and nervous diseases, but the more recent investigations have been followed as closely as possible and we have tried to give the most recent, up-to-date treatment for the relief of such difficulties. The institution, as apparently all of the institutions in the country, is overcrowded, not so much for lack of space to house patients as to allow of proper classification and give to individual patients an opportunity for special and individual care and treatment. The endeavors to make the institution an up-to-date one in every respect will be successful with more enlightenment on the part of the general public so that greater financial assistance will be given. Then every opportunity will be granted for a return to normal to all those mentally afflicted who are committed to our care.

OHIO.—An appropriation of \$250,000 was made by the legislature for 11 cottages at the Columbus School for the Feeble-Minded, also \$24,000 for their equipment, and \$25,000 for a tuberculosis hospital.

An appropriation of \$270,000 was made for the erection of 11 cottages at the Ohio Hospital for Epileptics at Gallipolis. No appropriation was made for equipment.

—*Massillon State Hospital, Massillon.*—At the present time, Cottage No. 4 is just about completed, and will be ready for occupation about the first of November. This cottage will accommodate about 100 patients of the working class. The majority will be employed in the garden. They will have their own separate dining-room. This cottage is of the latest construction and is fire-proof. There is also under construction a receiving cottage which is fire-proof. It will accommodate 76 patients, and is for men and women, the men being on the second floor. It will have an independent heating plant, also a separate dining-room and kitchen. It has a large day hall, dormitory and 12 separate rooms and a solarium to each floor. Also an office, reception, examination, pack, hydrotherapy and electrotherapy rooms. The physician in charge will live in this building. All new patients

will be received at this cottage and a thorough examination will be given before being placed on other wards. The plans are being drawn and will be approved with a few days for a cottage for the tuberculous. This cottage will accommodate about 50 patients. It will have a large porch and be a one-story building.

OREGON.—A bill was passed by the last legislature permitting the sterilization of the feeble-minded, insane, epileptic, habitual criminals, degenerates, and perverts. The decision is in the hands of the State Board of Eugenics, also created by the bill, which shall consist of the members of the State Board of Health, the Superintendents of the two state hospitals, the state penitentiary, and the State Institution for Feeble-Minded. The right of appeal to courts from the decision of the board is given to the subject or his guardian.

PENNSYLVANIA.—The legislature made an appropriation of \$250,000 for the erection of a state institution for the care of inebriates. Provision is also made for the commitment and discharge of such patients.

Another bill provides for the erection of a new state hospital east of the Alleghany Mountains to be known as the Eastern Hospital for the Insane. It is to be upon not more than 500 acres of land.

SOUTH CAROLINA.—*State Hospital for the Insane, Columbia.*—During the past six months, the work of remodeling eight wards of the Main Building for white female patients has progressed rapidly and is now nearing completion. This will enable a better classification of the patients as well as provide modern sanitary buildings.

In connection with the sick ward, is a complete dietary kitchen which serves the dual purpose of providing a place to prepare suitable food for the sick as well as a place for the special training of the nurses.

The ward work and laboratory work has progressed satisfactorily.

Classes for the re-education of patients have been carried on under the direction of a special teacher. Special classes have been organized for the children who are at the hospital.

Preparation is being made to place female nurses in charge of some of the male wards.

Field-day sports for the patients were held in September—the first time in many years.

SOUTH DAKOTA.—By act of legislature the name of the South Dakota Hospital for the Insane has been changed to Yankton State Hospital.

TEXAS.—The legislature has appropriated \$400,000 to establish a new hospital for the care of insane white patients to be called the Northwest Texas Insane Asylum. The hospital is planned to accommodate 1000 patients.

VERMONT.—The last legislature created the new office of Director of State Institutions who is to take over the work previously done by the Board of Penal Institutions, Trustees of the State Hospital for the Insane, and Trustees of the School for the Feeble-Minded. With the governor, state treasurer, auditor and an additional member to be appointed by the governor, he forms the new Board of Control. The appointment and compensation of assistants in any department are subject to approval by this board. With the chairman of the finance committee in the Senate, and of the ways and means committee and committee of appropriations of the House, the board is to prepare a budget to be submitted to the legislature.

Appointments, Resignations, Etc.

- ADLER, DR. HERMAN A., formerly Chief of Staff at Boston Psychopathic Hospital at Boston, Mass., has been appointed Criminologist to the Illinois Board of Public Welfare. He is the first man to fill such a position and Illinois is the first state to create such an office.
- ANDERSON, DR. CYRUS H., recently appointed Superintendent of the Anna State Hospital at Anna, Ill., has sold his newspaper, The Leader.
- ASPER, DR. BERT J., Assistant Physician at Springfield State Hospital at Sykesville, Md., was given a commission in the U. S. Naval Reserves and later was transferred to the U. S. Navy.
- BAGLEY, DR. CARLETON T., Medical Interne at Binghamton State Hospital at Binghamton, N. Y., resigned July 31, 1917, having received a commission in the United States Army.
- BANCROFT, DR. CHARLES P., Superintendent of New Hampshire State Hospital at Concord, resigned July, 1, 1917.
- BARLOW, DR. CHARLES A., Superintendent of Spencer State Hospital at Spencer, W. Va., resigned.
- BAUDUY, DR. WILLIAM KEATING, Emeritus Professor of Psychologic Medicine and Diseases of the Nervous System at Washington University at St. Louis, died July 1, 1917, aged 51.
- BETTS, DR. JOSEPH B., Senior Physician and Pathologist at Buffalo State Hospital at Buffalo, N. Y., has joined Base Hospital Unit No. 23 as pathologist, and has been commissioned as Captain in the U. S. Army.
- BOND, DR. EARL D., Senior Assistant Physician at Pennsylvania Hospital at Philadelphia, left for duty with U. S. Medical Reserve Corps September 7, 1917.
- BOONE, DR. J. E., appointed Medical Interne at State Hospital for the Insane at Columbia, S. C., July 1, 1917.
- BORDEN, DR. P. G., Assistant Physician at Massillon State Hospital at Massillon, Ohio, is with Base Hospital Unit No. 31.
- BOULDEN, DR. GEORGE A. P., appointed Assistant Physician at Manhattan State Hospital at Wards Island, N. Y., April 2, 1917.
- BOWMAN, DR. MARY R., Assistant Physician at Kings Park State Hospital at Kings Park, N. Y., resigned April 30, 1917, on account of ill health.
- BRADLEY, DR. ISABEL A., formerly Assistant Physician at Columbus State Hospital at Columbus, Ohio, and at Friends' Hospital at Frankford, Pa., appointed Assistant Physician at Columbus State Hospital.
- BREWSTER, DR. DAVID T., Assistant Physician at Danvers State Hospital at Hathorne, Mass., appointed Assistant Physician at Hudson River State Hospital at Poughkeepsie, N. Y.
- BROUGHAM, DR. DE WITT, appointed Medical Interne at Utica State Hospital at Utica, N. Y., September 1, 1917.
- BROWN, DR. SANGER, II, Assistant Physician at Bloomingdale Hospital at White Plains, N. Y., commissioned Captain in U. S. Medical Reserve Corps, and has been on duty at Gettysburg, Pa., examining soldiers.
- BRUSH, DR. CHARLES G., appointed Medical Interne at Kings Park State Hospital at Kings Park, N. Y., May 16, 1917, and promoted to Assistant Physician September 16, 1917.
- BURDSALL, DR. ELIJAH S., Assistant Physician at Middletown State Homeopathic Hospital at Middletown, N. Y., resigned September 9, 1917, to be Assistant Physician at Southern California State Hospital at Patton.

- BURNETT, DR. BURGH, appointed Medical Internes at St. Elizabeth's Hospital at Washington, D. C., and later appointed First Lieutenant, U. S. Army.
- BUSHONG, DR. R. F., Assistant Physician at Athens State Hospital at Athens, Ohio, appointed Acting Superintendent.
- BYINGTON, DR. S. B., appointed Medical Internes at State Hospital for the Insane at Columbia, S. C., July 1, 1917.
- CAMPBELL, DR. GEORGE B., First Assistant Physician at Utica State Hospital, was called to military service in the Medical Reserve Corps, July 27, 1917.
- CAMPBELL, DR. J. A., Superintendent of Anna State Hospital at Anna, Ill., resigned.
- CARR, DR. GEORGE P., Medical Internes at Manhattan State Hospital at Wards Island, N. Y., resigned May 22, 1917, to enter the Navy.
- CARRIEL, DR. H. C., Superintendent of Jacksonville State Hospital at Jacksonville, Ill., appointed Superintendent of Dixon Colony for Epileptics at Dixon, Ill.
- CASEY, DR. ELMER B. M., appointed Medical Internes at St. Elizabeth's Hospital at Washington, D. C.
- CHANDLER, DR. HENRY M., appointed Assistant Physician at Manhattan State Hospital at Wards Island, N. Y., April 1, 1917.
- CHILD, DR. HOWARD T., appointed Pathologist at State Hospital for the Insane at Norristown, Pa.
- CHRONQUEST, DR. ALFRED P., Assistant Physician at Danvers State Hospital at Hathorne, Mass., resigned and is serving at Base Camp at Charlotte, N. C.
- COHN, DR. EUGENE, Assistant Superintendent of Chicago State Hospital at Dunning, Ill., appointed Superintendent of Kankakee State Hospital at Kankakee, Ill.
- COLEBURN, DR. ARTHUR B., Assistant Physician at Connecticut Hospital for the Insane at Middletown, resigned August 1, 1917, to accept a commission in the U. S. Medical Reserve Corps.
- COOLEY, DR. R. L., Assistant Physician at St. Lawrence State Hospital at Ogdensburg, N. Y., transferred to Buffalo State Hospital at Buffalo, N. Y.
- CRANFORD, DR. W. S., Second Assistant Physician at East Mississippi Insane Hospital at Meridian, resigned in July to join the colors.
- CROMWELL, MRS. AGNES, appointed Manager of New Jersey State Hospital at Morris Plains.
- CRUTCHER, DR. WILFORD H., Assistant Superintendent of Nebraska State Hospital at Ingleside, appointed Superintendent of Orthopaedic Hospital at Lincoln.
- CURTIS, DR. CHESTER C., Medical Internes at Manhattan State Hospital at Wards Island, N. Y., resigned September 2, 1917, to enter private practice.
- DEATON, DR. E. H., appointed Medical Internes at Asylum for Insane Indians at Canton, South Dakota.
- DIAMOND, DR. BERT J., appointed Medical Internes at Manhattan State Hospital at Wards Island, N. Y., July 1, 1917.
- DOBSON, DR. WILLIAM A., Assistant Physician at Pennsylvania Hospital for the Insane at Philadelphia, left for duty with U. S. Medical Reserve Corps September 1, 1917.
- DOHERTY, DR. WALTER G., Dental Internes at St. Elizabeth's Hospital at Washington, D. C., resigned, having been called to the Army.
- DOLLOF, DR. CHARLES H., Assistant Superintendent of New Hampshire State Hospital at Concord, promoted to Superintendent July 1, 1917.
- DUVAL, DR. LEON E., Medical Internes at St. Elizabeth's Hospital at Washington, D. C., promoted to Junior Assistant Physician.
- DUNTON, DR. WILLIAM RUSH, JR., Assistant Physician at Sheppard and Enoch Pratt Hospital at Towson, Md., elected President of the National Society for the Promotion of Occupational Therapy, September 3, 1917.
- EATON, DR. J. L., appointed Superintendent of State Hospital No. 4, at Nevada, Missouri.
- EICHELEBERGER, DR. WILLIAM W., Assistant Physician at State Lunatic Asylum at Harrisburg, Pa., commissioned Captain in U. S. Medical Reserve Corps.
- ELWOOD, DR. HENRY E., JR., appointed Medical Internes at Willard State Hospital at Willard, N. Y., July 24, 1917.
- ERDMAN, DR. THOMAS F., appointed Superintendent at Norwich State Hospital at Norwich, Conn.

- EVANS, DR. BRITTON D., Superintendent of New Jersey State Hospital at Morris Plains, was tendered a dinner by about two hundred and fifty of his friends, June 2, 1917, to celebrate the 25th anniversary of his term of service at the hospital.
- EVANS, DR. MARY L., appointed Assistant Physician at Connecticut Hospital for the Insane at Middletown July 22, 1917.
- FARGO, DR. LEON KENDALL, Assistant Physician at Crownsville State Hospital at Crownsville, Md., appointed First Lieutenant, U. S. Medical Reserve Corps.
- FERNALD, DR. WALTER E., Superintendent of Massachusetts School for Feeble-minded at Waverley, appointed a member of a committee on conservation of child life.
- FISCHBEIN, DR. E. C., Junior Assistant Physician at Craig Colony for Epileptics at Sonycia, N. Y., has been commissioned First Lieutenant, U. S. Medical Reserve Corps.
- FISHER, DR. WILLIAM E., Assistant Superintendent of Connecticut Hospital for the Insane at Middletown, resigned May 1, 1917, to enter private practice. His record of service is unique in that he served over 40 years upon the same ward service.
- FITZGERALD, DR. JAMES J., Medical Interne at Manhattan State Hospital at Wards Island, N. Y., resigned August 25, 1917, to enter the Army Service.
- FITZPATRICK, DR. EDWARD J., appointed Medical Interne at Brooklyn State Hospital at Brooklyn, N. Y., March 4, 1917.
- FITZSIMMONS, DR. THOMAS CHARLES, Superintendent of State Hospital for the Insane at Fairview, Pa., died at the Medico-Chirurgical Hospital, Philadelphia, May 17, 1917, following a surgical operation.
- FLAGG, DR. CHARLES MUNROE, appointed Assistant Physician at Danvers State Hospital at Hathorne, Mass.
- FORDYCE, DR. ORA O., Superintendent of Athens State Hospital at Athens, Ohio, given leave of absence.
- GAHAGAN, DR. H. J., Superintendent of Elgin State Hospital at Elgin, Ill., resigned.
- GAINES, DR. ARTHUR R., Assistant Physician at Pennsylvania Hospital for the Insane at Philadelphia, left for duty with U. S. Medical Reserve Corps July 17, 1917.
- GLUECK, DR. BERNARD, Psychiatrist at Sing Sing Prison, appointed in charge of a clinic at the new Westchester County Penitentiary.
- GOODNER, DR. R. A., Superintendent of Kankakee State Hospital at Kankakee, Ill., transferred to Peoria State Hospital at Peoria, Ill.
- GORTON, DR. ELIOT, Resident Physician at Fair Oaks Sanitarium at Summit, N. J., died March 3, 1917, from pneumonia.
- GRAHAM, DR. M. F. E., Assistant Physician at Provincial Hospital for the Insane at Brockville, Ontario, appointed Resident Physician at Royal Jubilee Hospital at Victoria, B. C.
- GRIFFIN, DR. GRACE H., appointed Medical Interne at Rochester State Hospital at Rochester, N. Y., July 1, 1917.
- GUNDREY, DR. LEWIS H., Proprietor of Relay Sanitarium at Relay, Md., has recently assisted in examining the Maryland National Guard.
- HALL, DR. ROSCOE C., Assistant Physician at Henry Phipps Psychiatric Clinic at Baltimore, Md., is on duty with N. Y. Psychiatric Unit No. 1.
- HARBOTTLE, DR. JOHN TAYLOR, formerly Assistant Physician at Dayton State Hospital at Dayton, Ohio, died August 17, 1917, from injuries received in an automobile accident nine hours before.
- HARMON, DR. VACHELLE E., appointed Medical Interne at St. Elizabeth's Hospital at Washington, D. C., and resigned to enter the U. S. Navy as Assistant Surgeon.
- HARRIS, MRS. ELIZABETH H. A., appointed Manager of New Jersey State Hospital at Morris Plains.
- HASKELL, DR. PEARL T., appointed Superintendent of Bangor State Hospital at Bangor, Maine, June 13, 1917.
- HAUPT, DR. WALTER CLARK, formerly Assistant Physician at Butler Hospital at Providence, R. I., died June 4, 1917, aged 30.
- HAVILAND DR. EVERAL CALEB, formerly Assistant Physician at the Brattleboro Retreat, died May 27, 1917, aged 39.

- HAWLEY, DR. M. J., Assistant Superintendent of Elgin State Hospital at Elgin, Ill., promoted to Superintendent of Watertown State Hospital at East Moline, Ill.
- HAY, DR. THOMAS HAMILTON, formerly Assistant Physician at Northern Wisconsin Hospital for the Insane at Winnebago, died July 29, 1917, in Elizabethtown, N. J., from heart disease aged 56.
- HAYES, DR. CLARA E., Assistant Physician at Peoria State Hospital at Peoria, Illinois, appointed Superintendent of Illinois State Training School for Girls at Geneva.
- HENSCHEL, DR. L. K., Senior Assistant Physician at New Jersey State Hospital at Morris Plains, left July 1, 1917, for duty with the U. S. Army.
- HERREL, DR. J. M., Superintendent of Chester State Hospital at Menard, Ill., resigned.
- HERRING, DR. A. P., Secretary of the Maryland Lunacy Commission was appointed a contract Surgeon to examine the Maryland National Guard.
- HERRING, DR. GEORGE H., Junior Assistant Physician at New Jersey State Hospital at Morris Plains, left July 9, 1917, for duty with the U. S. Army.
- HEYMAN, DR. MARCUS B., Assistant Superintendent at Central Islip State Hospital at Central Islip, N. Y., for about 20 years, after having been appointed Medical Inspector of the State Hospital Commission and serving in this capacity for about one month, was appointed Superintendent of Manhattan State Hospital at Wards Island, N. Y., June 1, 1917.
- HEYSINGER, DR. ISAAC WINTER, a member of the commission which supervised the construction of the State Hospital for the Insane at Rittersville, Pa., died May 18, 1917, aged 75, from heart disease.
- HILLS, DR. FREDERICK L., Superintendent of Bangor State Hospital at Bangor, Maine, resigned.
- HINTON, DR. RALPH T., Superintendent of Peoria State Hospital at Peoria, Ill., transferred to Elgin State Hospital at Elgin, Ill.
- HOCHHEIMER, DR. EMANUEL, Physician to the New York City Asylum for the Insane, died May 29, 1917, aged 62.
- HOHMAN, DR. LESLIE, Assistant Physician at Henry Phipps Psychiatric Clinic at Baltimore, Md., commissioned in U. S. Medical Reserve Corps.
- HOOKE, DR. JAMES F., Medical Interne at St. Elizabeth's Hospital at Washington, D. C., promoted to Junior Assistant Physician, and resigned to enter the U. S. Navy as Assistant Surgeon.
- HUBBELL, DR. HIRAM G., appointed Assistant Physician at Kings Park State Hospital at Kings Park, N. Y., July 1, 1917.
- HUNT, DR. J. RAMSAY, appointed Consulting Neurologist at Letchworth Village at Thiells, N. Y.
- HUTCHINGS, DR. R. H., Superintendent of St. Lawrence State Hospital at Ogdensburg, N. Y., is absent on military duty.
- HYDER, DR. HERMAN P., appointed Medical Interne at St. Elizabeth's Hospital at Washington, D. C.
- JACOBS, DR. ADOLPH, appointed Dental Interne at St. Elizabeth's Hospital at Washington, D. C.
- JOHNSON, DR. ALICE E., appointed Assistant Physician at Pennsylvania Hospital at Philadelphia, September 1, 1917.
- JOY, DR. CHARLES A., Junior Assistant Physician at Craig Colony for Epileptics at Sonyea, N. Y., resigned August 12, 1917, being called to active duty as First Lieutenant, U. S. Medical Reserve Corps.
- KANDIE, DR. ANNA H., Assistant Physician at Danvers State Hospital at Hathorne, Mass., resigned to be Pathologist at Brockton Hospital at Brockton, Mass.
- KEMFF, DR. HELEN D. CLARK, Medical Interne at St. Elizabeth's Hospital at Washington, D. C., promoted to Junior Assistant Physician.
- KENYON, DR. HOWARD M., appointed Medical Interne at Binghamton State Hospital at Binghamton, N. Y., July 1, 1917.
- KING, DR. ROBERT, Senior Assistant Physician at Buffalo State Hospital at Buffalo, N. Y., has enlisted in the Psychiatric Unit with commission as Captain and has been sent to Camp Wheeler, Macon, Ga.

- KIRBY, DR. GEORGE H., Clinical Director at Manhattan State Hospital at Wards Island, N. Y., obtained leave of absence and was detailed to serve as Medical Inspector for the State Hospital Commission. At present he is under detail to the Training Camp at Plattsburgh, N. Y., investigating mental delinquents.
- KIRK, DR. CHESTER C., Assistant Physician at Toledo State Hospital at Toledo, Ohio, appointed Superintendent at State Hospital for Nervous and Mental Diseases at Little Rock, Ark.
- KRAFT, DR. J. EUGENE, Medical Interne at Kings Park State Hospital at Kings Park, N. Y., resigned March 31, 1917.
- LANE, DR. HARRY, formerly Superintendent of Oregon State Hospital at Salem, died in a hospital in San Francisco, May 23, 1917, aged 61, from cerebral hemorrhage.
- LA SALA, DR. JOSEPH, Medical Interne at Manhattan State Hospital at Wards Island, N. Y., resigned August 31, 1917, to enter private practice.
- LEAK, DR. ROY L., Superintendent of Syracuse Psychopathic Hospital at Syracuse, N. Y., appointed Medical Director at State Hospital for the Insane at Columbia, S. C., August 15, 1917.
- LEARY, DR. JOHN J., appointed Medical Interne at Utica State Hospital at Utica, N. Y., July 1, 1917.
- LEININGER, DR. GEORGE, Superintendent of Chicago State Hospital at Dunning, Ill., resigned.
- LYON, DR. MORRIS A., Medical Interne at Kings Park State Hospital at Kings Park, N. Y., resigned September 12, 1917.
- MACKAY, DR. H. A., formerly Assistant Physician at Toronto Hospital for the Insane at Toronto, Ontario, appointed Assistant Superintendent at Ontario Military Hospital at Cobourg.
- MC CLOUD, DR. J. J., Assistant Physician at Massillon State Hospital at Massillon, Ohio, transferred to Industrial Department of State Board of Health at Columbus, Ohio.
- MCDONNELL, DR. P. J., appointed Assistant Physician at Connecticut Hospital for the Insane at Middletown June 12, 1917, and resigned to enter private practice September 10, 1917.
- MCGUMPHY, DR. SAMUEL BENTON, formerly Superintendent of South Dakota State Hospital at Yankton, died May 25, 1917, aged 79.
- MAY, DR. HERMAN F., Senior Assistant Physician at Buffalo State Hospital at Buffalo, N. Y., has joined Base Hospital Unit No. 23 as neurologist and has been commissioned Lieutenant.
- MITCHELL, DR. JOHN KEARSLEY, Physician to the Philadelphia Infirmary for Nervous Diseases, died April 10, 1917, of heart disease.
- MONETTE, DR. REUBEN FLETCHER, formerly Assistant Physician at Manhattan State Hospital at Wards Island, N. Y., and recently in private practice in Greensboro, Ala., died while on a fishing trip in the Warrior Swamp near Greensboro, from acute gastritis, aged 46.
- MOODY, DR. GEORGE H., proprietor of the Moody Sanitarium for Nervous and Mental Diseases, died April 29, 1917.
- MOORE, DR. ARTHUR S., Senior Assistant Physician at Middletown State Homeopathic Hospital at Middletown, N. Y., commissioned Captain, U. S. Medical Reserve Corps, May 19, 1917, and left for military service July 16, 1917.
- MOSIER, DR. MERLE M., appointed Assistant Physician at Connecticut Hospital for the Insane at Middletown, June 30, 1917.
- MOYER, DR. SUSAN S., appointed Assistant Physician at State Lunatic Asylum at Harrisburg, Pa.
- MOYNON, DR. R. S., of the Medical Staff of the Columbus State Hospital at Columbus, Ohio, has entered the regular Army Medical Service and is stationed at Washington, D. C.
- NEIL, DR. THOMAS F., Medical Interne at Watertown State Hospital at East Moline, Ill., has entered the Hospital Corps of the U. S. Army.
- NORBURY, DR. FRANK P., Medical Superintendent of the Norbury Sanitarium at Jackson-ville, Ill., was tendered a dinner at Des Moines, Iowa, where he delivered an address on mental hygiene, March 13, 1917. Recently he has been appointed a member of the Illinois State Board of Public Welfare.

- NORRIS, DR. LESTER F., promoted to First Assistant Physician at Bangor State Hospital at Bangor, Maine.
- O'MALLEY, DR. MARY, Senior Assistant Physician at St. Elizabeth's Hospital at Washington, D. C., promoted to Clinical Director.
- OLIVER, DR. JOHN RATHBONE, Assistant Physician at Henry Phipps Psychiatric Clinic at Baltimore, Md., commissioned in U. S. Medical Reserve Corps.
- ORTH, DR. HENRY L., Superintendent of State Lunatic Asylum at Harrisburg, Pa., has announced his intention of retiring at the end of 27 years' service in this position. He assumed duty November 1, 1891.
- PARDANYI, DR. EMIL J., Assistant Physician at Connecticut Hospital for the Insane at Middletown, resigned June 7, 1917, to enter private practice.
- PHILLIPS, DR. D. P., of the Medical Staff of Columbus State Hospital at Columbus, Ohio, has entered the U. S. Medical Reserve Corps and is awaiting assignment orders.
- PHILLIPS, DR. WARREN M., appointed Assistant Physician at Nebraska State Hospital at Norfolk.
- PITTOCK, DR. HARRY J., appointed Assistant Physician at Nebraska State Hospital at Ingleside.
- POLLOCK, DR. HENRY M., Superintendent of Norwich State Hospital at Norwich, Conn., appointed Superintendent of Massachusetts Homeopathic Hospital at Boston.
- RAYNOR, DR. MORTIMER J., appointed Clinical Director of Psychiatry at Manhattan State Hospital at Wards Island, N. Y., August 22, 1917, has obtained leave of absence and entered military service.
- READ, DR. CHARLES F., appointed Superintendent of Chicago State Hospital at Dunning, Illinois.
- RIACH, DR. THOMAS J., Medical Intern at Watertown State Hospital at East Moline, Ill., has entered the Hospital Corps of the U. S. Army.
- RICHARDS, DR. JOHN, Assistant Physician at Manhattan State Hospital at Wards Island, N. Y., appointed Assistant Superintendent of Randall's Island Hospital, June 16, 1917.
- ROWE, DR. CHARLES E., Medical Intern at Rochester State Hospital at Rochester, N. Y., transferred April 1, 1917, to Binghamton State Hospital, Binghamton, N. Y., and promoted to Assistant Physician September 10, 1917.
- RYAN, DR. EDWARD, formerly Superintendent of Rockwood Hospital for Mental Diseases at Kingston, Ontario, appointed Medical Officer of the Military Hospitals Commission for the Toronto District.
- ST. JOHN, DR. DAVID, Manager of New Jersey State Hospital at Morris Plains, died September 14, 1917, aged 68.
- SAMPSON, DR. DAVID G., Medical Intern at St. Elizabeth's Hospital at Washington, D. C., promoted to Junior Assistant Physician.
- SANDS, DR. IRVING J., appointed Medical Intern at Manhattan State Hospital at Wards Island, N. Y., July 1, 1917.
- SANDY, DR. WILLIAM C., Medical Director of State Hospital for the Insane at Columbia, S. C., appointed Assistant Superintendent of State Hospital for the Insane at Middletown, Conn., June 1, 1917.
- SANFORD, DR. LESTER E., Medical Intern at Binghamton State Hospital at Binghamton, N. Y., promoted to Assistant Physician, September 10, 1917.
- SARGENT, DR. GEORGE FRANKLIN, Assistant Physician at Sheppard and Enoch Pratt Hospital at Towson, Md., has been making medical examinations of drafted men.
- SCHMITZ, DR. WALTER S., Assistant Physician at Middletown State Homeopathic Hospital at Middletown, N. Y., and Miss Mary M. Norris, R. N., Matron in the same institution, announced their marriage in June, 1917.
- SCHWATT, DR. LINA D., appointed Physician to Department for the Insane of the Philadelphia Hospital at Byberry, Pa.
- SHAPIRO, DR. BENJAMIN, appointed Medical Intern at Brooklyn State Hospital at Brooklyn, N. Y., July 1, 1917.
- SILK, DR. SAMUEL A., Medical Intern at St. Elizabeth's Hospital at Washington, D. C., promoted to Junior Assistant Physician.

- SIMS, DR. J. MORGAN, formerly Superintendent at Central State Hospital at Lakeland, Ky., committed suicide while under treatment at the Alton State Hospital at Alton, Ill., by jumping from the roof of a sun porch, August 16, 1917, aged 48.
- SINGER, DR. H. DOUGLAS, Director of Illinois State Psychopathic Institute at Kankakee, appointed Alienist to the Illinois Department of Public Welfare.
- SISSON, DR. C. E., First Assistant Physician at Norwalk State Hospital at Norwalk, Cal., resigned to enter the United States Army Service.
- SMITH, DR. JESSE W., Special at St. Elizabeth's Hospital at Washington, D. C., resigned to enter the Navy as Assistant Surgeon.
- SMITH, DR. THERON, Medical Intern at Binghamton State Hospital at Binghamton, N. Y., resigned September 30, 1917, to enter private practice in New Jersey.
- SMYTH, DR. MARGARET, promoted to First Assistant Physician at Stockton State Hospital at Stockton, Cal.
- SRIDLEY, DR. ELAM F., Junior Assistant Physician at New Jersey State Hospital at Morris Plains, N. J., left August 16, 1917, for duty with the U. S. Army.
- STECKEL, DR. HARRY A., Assistant Physician at Kings Park State Hospital at Kings Park, N. Y., was commissioned First Lieutenant, U. S. Medical Reserve Corps, and reported for duty on June 16, 1917, at Fort Benjamin Harrison, Indiana, upon order of the War Department.
- STILLGEN, DR. WALTER F., appointed Medical Intern at Manhattan State Hospital at Wards Island, N. Y., May 25, 1917.
- STOCKTON, DR. GEORGE, formerly Superintendent of Columbus State Hospital at Columbus, Ohio, died January 9, 1917, from uremia.
- STRECKER, DR. EDWARD A., Assistant Physician at Pennsylvania Hospital for the Insane at Philadelphia, left for duty with U. S. Medical Reserve Corps, August 15, 1917.
- STRONG, DR. A. E., appointed First Assistant Physician at Norwalk State Hospital at Norwalk, Cal.
- STUBBLEFIELD, DR. F. A., Assistant Superintendent of Chester State Hospital at Menard, Ill., promoted to Superintendent.
- SWIERAT, DR. JOHN V., appointed Medical Intern at Kings Park State Hospital at Kings Park, N. Y., July 1, 1917.
- TADDIKEN, DR. PAUL G., Assistant Physician at St. Lawrence State Hospital at Ogdensburg, N. Y., appointed Acting Superintendent.
- TATE, DR. PRENTISS S., appointed Assistant Physician at State Hospital No. 4, at Nevada, Missouri.
- TAYLOR, DR. F. A., appointed Assistant Physician at Connecticut Hospital for the Insane at Middletown July 1, 1917.
- THORNE, DR. FREDERIC H., Pathologist at New Jersey State Hospital at Morris Plains, N. J., left June 15, 1917, for duty with the U. S. Army.
- THORNLEY, DR. ROY A., promoted to Second Assistant Physician at Bangor State Hospital at Bangor, Maine.
- TIMME, DR. A. R., Assistant Physician at Pennsylvania Hospital for the Insane at Philadelphia, left for duty with the U. S. Medical Reserve Corps September 1, 1917.
- TOUCHSTONE, DR. A. G., appointed Second Assistant Physician at East Mississippi Insane Hospital at Meridian July 1, 1917.
- VAN BUREN, DR. J. H., Junior Assistant Physician at Craig Colony for Epileptics at Sonyea, N. Y., resigned.
- VAN COR, DR. CHESTER A., appointed Assistant Physician at Connecticut Hospital for the Insane at Middletown, June 1, 1917.
- VOGT, DR. ALFRED H., Medical Intern at Buffalo State Hospital at Buffalo, N. Y., commissioned Lieutenant, U. S. Medical Reserve Corps, and is at Fort Oglethorpe, Georgia.
- VROOMAN, DR. F. S., Assistant Superintendent at the Brockville Hospital for the Insane at Brockville, Ontario, appointed Medical Superintendent of Ontario Military Hospital at Cobourg.
- WADE, DR. J. PERCY, Superintendent of Spring Grove State Hospital at Catonsville, Md., has recently assisted in examining the Maryland National Guard.

- NORRIS, DR. LESTER F., promoted to First Assistant Physician at Bangor State Hospital at Bangor, Maine.
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- TADDIKEN, DR. PAUL G., Assistant Physician at St. Lawrence State Hospital at Ogdensburg, N. Y., appointed Acting Superintendent.
- TATE, DR. PRENTISS S., appointed Assistant Physician at State Hospital No. 4, at Nevada, Missouri.
- TAYLOR, DR. F. A., appointed Assistant Physician at Connecticut Hospital for the Insane at Middletown July 1, 1917.
- THORNE, DR. FREDERIC H., Pathologist at New Jersey State Hospital at Morris Plains, N. J., left June 15, 1917, for duty with the U. S. Army.
- THORNLEY, DR. ROY A., promoted to Second Assistant Physician at Bangor State Hospital at Bangor, Maine.
- TIMME, DR. A. R., Assistant Physician at Pennsylvania Hospital for the Insane at Philadelphia, left for duty with the U. S. Medical Reserve Corps September 1, 1917.
- TOUCHSTONE, DR. A. G., appointed Second Assistant Physician at East Mississippi Insane Hospital at Meridian July 1, 1917.
- VAN BUREN, DR. J. H., Junior Assistant Physician at Craig Colony for Epileptics at Sonyea, N. Y., resigned.
- VAN COR, DR. CHESTER A., appointed Assistant Physician at Connecticut Hospital for the Insane at Middletown, June 1, 1917.
- VOGT, DR. ALFRED H., Medical Intern at Buffalo State Hospital at Buffalo, N. Y., commissioned Lieutenant, U. S. Medical Reserve Corps, and is at Fort Oglethorpe, Georgia.
- VROOMAN, DR. F. S., Assistant Superintendent at the Brockville Hospital for the Insane at Brockville, Ontario, appointed Medical Superintendent of Ontario Military Hospital at Cobourg.
- WADE, DR. J. PERCY, Superintendent of Spring Grove State Hospital at Catonsville, Md., has recently assisted in examining the Maryland National Guard.

- WAGNER, DR. CHARLES G., Superintendent of Binghamton State Hospital at Binghamton, N. Y., is reported to be seriously ill.
- WALKER, DR. LEWIS M., appointed Assistant Physician at Pennsylvania Hospital for the Insane at Philadelphia, September 1, 1917.
- WEATHERBY, DR., Assistant Physician at Manhattan State Hospital at Wards Island, N. Y., is on leave of absence and is in the Army Service.
- WEISENBURG, DR. THEODORE H., of Philadelphia, Pa., has been appointed a member of the National Committee for Mental Hygiene.
- WELTNER, DR. FRED P., formerly Assistant Physician at Sheppard and Enoch Pratt Hospital at Towson, Md., now First Lieutenant, U. S. Medical Reserve Corps, is on duty at Camp Kelly, South San Antonio, Texas, with the 31st Aero Squadron.
- WERNER, DR. HENRY C., appointed Supervisor of State Institution for Feeble-minded Children at Union Grove, Wisconsin.
- WHITE, DR. MOSES JAMES, formerly Superintendent of Milwaukee County Hospital for the Insane at Wauwauwatosa, Wis., died at Hartford, Conn., March 14, 1917.
- WHITTINGTON, DR. WILLIAM L., Assistant Superintendent at State Hospital No. 2 at St. Joseph, Missouri, resigned.
- WILL, DR. ELSA B., appointed Medical Interne at St. Elizabeth's Hospital at Washington, D. C.
- WINTERODE, DR. R. P., Superintendent of Crownsville State Hospital at Crownsville, Md., has recently assisted in examining the Maryland National Guard.
- WISEMAN, DR. JOHN I., Assistant Physician at Connecticut Hospital for the Insane at Middletown, resigned June 12, 1917, to accept a commission in the U. S. Medical Reserve Corps, and is now on duty in France.
- WOLFE, DR. HUMPHREY D., Assistant Physician at Sheppard and Enoch Pratt Hospital at Towson, Md., appointed First Lieutenant, U. S. Medical Reserve Corps.
- WOOD, DR. ALFRED TRENCHARD, Assistant Physician at Central Islip State Hospital at Central Islip, N. Y., transferred to Kings Park State Hospital at Kings Park, N. Y., March 15, 1917.
- YOUNG, DR. FRANKLIN C., Junior Assistant Physician at New Jersey State Hospital at Morris Plains, left September 15, 1917, for duty with the U. S. Army.
- YOUNG, DR. JUNIUS D., First Assistant Physician at Stockton State Hospital at Stockton, Cal., died May 23, 1917, aged 59.
- ZEISS, DR. ROBERT F., Medical Interne at Manhattan State Hospital at Wards Island, N. Y., resigned, June 28, 1917, to enter the Army Service.
- ZELLER, DR. GEORGE A., formerly Superintendent of Peoria State Hospital at Peoria, Ill., and recently Alienist to Illinois Board of Administration, appointed Superintendent of Alton State Hospital at Alton, Ill.

AMERICAN JOURNAL OF INSANITY

THE PRINCIPLES OF DIAGNOSIS IN PSYCHIATRY.*

By E. STANLEY ABBOT, M.D.,

Assistant Physician McLean Hospital, Waverley, Mass.

This paper offers nothing really new, but there are tendencies in our psychiatric practice which make one wish to recall to mind some of the principles that have proved effective in other branches of medical science, but which we do not always apply to our own branch, or do not do it as well or as consciously as we might.

Whenever a human being, young or old, fails or ceases to adjust himself to life in his customary way, with his customary efficiency, or in the way that would be expected of one of his age, origin, training and opportunities, we think something is the matter with him. This is a fundamental and universal assumption.

The physician is appealed to for help in getting the person back to his previous capability. In order to help wisely and effectively he must, so far as he can, determine what this something-the-matter is—that is, he must make a diagnosis.

The number of things that may ail persons is legion, and their consequences in the way of temporary or permanent disabilities or modifications of functions and behavior are greater still. In some conditions the physical symptoms are in the foreground, but in all both physical and social factors also are present, though they may have little bearing in making the diagnosis. For example, the teamster whose foot is crushed cannot work for awhile. This is a social factor, but it has nothing to do with the medical diagnosis. So it is in most of the general medical and surgical conditions.

But in the cases that come to the psychiatrist the psychical and social factors are far more in the foreground—so much so as to

* Read at the seventy-third annual meeting of The American Medico-Psychological Association, New York, May 29-June 1, 1917.

make us even forget or deny that there may be physical ones, or that they are of importance if they do exist. There is a tendency among psychoanalysts even to go so far as to decline to treat or consider the physical conditions that may be present. In the study of feeble-mindedness there are psychologists who declare that their tests alone are sufficient for diagnosis. Neither puts himself in the way to find out fully what is the matter with the patient, and hence to treat the patient most wisely.

In external wounds of the body, such as are seen on the battle-fields of Europe, the actually damaged tissues can be seen and felt by the surgeon, and the something-the-matter is patent to immediate observation. But even there the full extent of the functional disability can only be determined by methods similar to those in use in all other diagnosis.

What are these methods? How do we make a diagnosis?

We see a man who limps. What is the matter with him? Why does he not walk as other men do? In what way does his gait differ from the normal? What is the mechanism of his gait? By observation we find that the altered activity is caused by a shortening of one limb. We thus eliminate such other possible causes of limp as a broken arch, a pebble in the shoe, etc. What makes it shorter? How did it become so? We have to think of all the possibilities known to our experience, such as infantile paralysis, fracture of the hip or thigh, dislocation, etc. By inquiry we learn that the gait was normal previous to an accident a year ago in which the man fell heavily on his hip. We thus eliminate an infantile paralysis, with consequent arrested development of the limb, as a cause of the shortening, hence of the limp. By actual measurement we find the shortening to be in the thigh not in the leg, thus eliminating the possibility of a badly set fracture of both bones of the leg. Further inquiry as to the facts of the accident, and examination as to the location of pain, if any, as to the possibilities and limitations of motion, and as to any fluoroscopic or X-ray appearances, enable us to eliminate fracture of the acetabulum with upward dislocation of the head of the femur, or fracture of the shaft of the femur with imperfect adjustment of the fragments. Then, by comparison with our past experience we decide that an old impacted fracture of the neck of the femur, now healed, can give rise to the limp and all the other findings and symptoms in this case. That then is the diagnosis.

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We can *see* the limp and *measure* the shortening of the thigh, but we cannot see, nor directly feel, the neck of the femur, neither can we measure it. Hence we must *infer* the impaction and the healing.

Our conclusion, then, even in a comparatively simple case like this, is the result of a series of inferences. These inferences are *from* (1) observed facts (limp, *i. e.*, abnormal manner of walking, shortening of the thigh, limitation of rotary movement, etc.), (2) the past history (of previous normal gait, of fall on hip, of pain for a time, etc.) and (3) our accumulated knowledge of the different abnormal conditions that may give rise to the various symptoms. We ask ourselves first what functions are altered, and in what way and to what degree they are altered, and then what conditions, structural or functional (anatomical, physiological or psychological) may give rise to these alterations; that is, we ask a series of *whats* and *whys*—the *whats* to get at all the symptoms and conditions, whether of presence, absence or perversion of function or of structural alteration, that may have any bearing on the case, the *whys* to get at their underlying causes or conditions.

By the series of inferences we are led eventually *from* the factors enumerated *to* the final conclusion, which is, as it were, a sort of *final common answer* to all the *whys*. This is the *diagnosis*, the definition or denotation of what the matter is with the patient.

The conclusion that we reach—our concept of what is the matter—cannot be stated in a word, but for convenience' sake we use some name to denote it. It does not matter what the name is, just so that we always denote the same concept by it. We have given names in general medicine and in psychiatry for many reasons. Some have been symptomatic names, as *tic douloureux*; some have been descriptive, as manic-depressive psychosis; some are etiological, as alcoholic psychosis; some are traditional, as syphilis; some are attempts at expressing the nature of the disease, as schizophrenia.

It is the whole end and aim of all science to modify our concepts, to clarify them, define them, make them more accurate, tally more closely with the facts of nature. Yet we often keep the old words that denote them, as in the case of the word *atom*, the concept which it denotes having been profoundly altered within recent years. So in psychiatry we need to keep trying to clarify and

delimit our diagnostic concepts. But this does not mean that we should keep the old lines with the old names, nor that in case of need we should not make new names. But we should avoid the mistake of expanding the connotation of words to include things that do not in their essence belong together, though they may have some one or more factors in common. For example, it is better to limit and narrow the significance of words like epilepsy or paranoia, rather than expand them vaguely and speak of the epilepsies, or the paranoias, just because there are convulsions in the one case or elaborated delusions in the other. It is better to follow the general medical usage, illustrated by typhus, which at first included dysentery and typhoid fever; later typhoid was limited still further, paratyphoid being separated from it; and now there are paratyphoid alpha and paratyphoid beta. It would seem like going backwards now to speak of the typhuses.

Even in general medicine we cannot always arrive at so definite a something-the-matter as in the case cited. For example, when we see a case of ordinary acute articular rheumatism we can make that diagnosis in the given case because we infer that it is the same something-the-matter which affects this case that affects all other cases of acute articular rheumatism. But we have to admit to ourselves that we do not yet know what fundamentally is the matter. Our series of inferences leads us to an unknown *M*, which we think may possibly be an infection by some sort of organism of a person inadequately resistant to it. We nevertheless make the diagnosis with a considerable degree of assurance, and keep on looking in the most probable directions for the something back of it which we rightly assume to be there. In very obscure cases we are often at a loss to reach any final common answer, our physiological and biochemical knowledge not being equal to our needs, and nothing that we know being accountable for all the symptoms.

In war surgery inference plays perhaps the least part in making diagnoses. In abdominal surgery it plays a greater part; in general medicine a still greater, and in psychiatry the greatest of all. For in the latter we have to deal with a far wider range of factors, including those of individual make-up and development, of environmental conditions both past and present, of personal and social behavior, of psychological capabilities and reactions, as well as those of present physical condition and functioning.

In psychiatry the inferences we draw are more remote and in longer chains than in the other specialties. They are less from concrete facts of observation, and more from abstract data or from antecedent inferences. The farther away we get from concrete data the greater is the liability to error, and the less certain can we be of the validity of our inferences. Hence it greatly increases the difficulty of finding a final common answer to the questions, "Why does the patient do this, which seems abnormal, and why does he not do that, which is what we should expect of him if he were well?"

But this should not discourage us, excuse us, or deter us from seeking the answers, and by the same method as in general medicine.

Let us take a case in point. A man of 56, a hard worker, driving himself, a heavy smoker, heavy drinker till three years before admission, of nervous, tense make-up, and rather irritable, had syphilis at 33. This was thoroughly treated with mercury and iodides for two and a half years, during two of which he had gastric disturbance and a mild depression, which did not, however, keep him from work. Three years before admission he had a corneal ulceration, thought to be tubercular, though the tuberculin reaction was negative. A Wassermann reaction of the blood at that time was also negative. He was taken into partnership and conducted a steadily growing business successfully. He had a continuous and lively sense of obligation to his partner, an old man, who had befriended him. For about ten months before admission he thought, with some ground, that his partner was not carrying out certain agreements, and a few weeks before admission became suspicious of the partner's son and was very excitable and a little grandiose. Then suddenly one day he became panicky, thought a man was going to kill him, the next day that detectives were after him and that he had been poisoned, and insisted on having some vomitus analyzed. He was very unreasonable, but on being taken to the hospital accepted the situation fairly readily. For two or three weeks he was rather depressed, thought his wife, his daughter and his partner's son were conspiring against him, and was unreasonably irritable, but he was easily diverted, and then became euphoric, rather voluble and flighty, with partial insight. Physically he showed a left knee jerk possibly but not

certainly a trifle greater than the right, slight incoordination of movements of upper lip and possibly of the left arm, but the pupils and all other neurological and anatomical mechanisms were negative. Both blood and spinal fluid were negative to the Wassermann test. After six weeks in the hospital he left, still mildly euphoric, rather quickly changeable in mood, somewhat fault-finding and critical, but according to his wife "perfectly natural." Two and a half months later he called, of his own accord, to show how well and sane he was, in order that his guardianship might be discharged. At that time he was voluble, easy-going, happy, self-confident, a trifle boastful, with good memory, and apparently good judgment about his business, but still without insight as to his former delusions and the need of being taken to the hospital, but he bore no grudge. Pupils a trifle irregular in outline, but normal in reactions. Other findings were as before. He is said to have continued at his business, apparently successfully, for the past four years.

Here is a man who seems to have changed in his modes of behavior and reaction. Are the external circumstances such as to call for such behavior? If not, there must be some internal conditions. What are they? What is the matter with him? Why does he not behave as he used to? In what ways does his behavior differ from what we should expect of him in the circumstances?

By observation we see that he is easily angered and easily appeased; that he has not his usual self-control; that he is somewhat over-active; that he makes superficial snap-judgments; that he holds on to some of these judgments rather persistently, in the face of their improbability—he retains them as delusions; that his memory is good, etc.

We may infer perhaps that he is overactive and emotionally unstable because of his diminished self-control. But what causes the latter? What causes his judgment defect? What is its type? What causes the persistence of his superficial judgments?

Some of these questions we can answer by further observations and examinations, others only by suppositions and theories or by inferences from our previous experience.

By continually pushing our inquiries along psycho- and physiopathological lines into all the symptoms and conditions that we find or infer, we come eventually to the possibility that one or more

of several different things may be the matter with the patient, may underlie all his symptoms, be the cause of his changed behavior. These are (1) the effects of a more or less diffuse infection of the cerebral cortex and adjacent parts by the *treponema pallidum* in a person not sufficiently resistant to it (to which we give the name, general paralysis) and (2) the effects of some quite different but unknown condition—to my mind fatigue or something very like it—which we call manic-depressive psychosis. But these are wholly different conditions. We can eliminate other possibilities, namely, alcoholism, by the fact that he has not drunk for three years; a drug psychosis, because he has not taken any drugs; and probably cerebral arteriosclerosis, by the absence of sclerotic changes in palpable arteries, of cardio-renal disturbances, of memory defect, of tendency to perseveration, and of increased blood-pressure.

Either of the first two underlying conditions may account for nearly all the symptoms presented; neither seems to account for them all. There is, of course, the possibility that some other unknown condition may be present with one or the other, or that there may be a third wholly different and unknown condition back of it. Until the patient dies we cannot confirm our conjectures by actual investigation of his tissues. We must assume that in spite of the similarity of the symptoms in the two possible conditions, a different something lies back of his abnormalities if he has general paralysis from that which gave rise to them if he has had a manic-depressive attack. That is the ground and the necessity of our trying to make a differential diagnosis, instead of accepting the symptoms at their face value.

Thus we have to assume two fundamentally different possibilities where at least superficially the symptoms look much alike.

On the other hand we make one diagnosis, that of manic-depressive psychosis, in the cases of patients who show such widely different symptoms as those of the depressed phase, of the manic phase and of the stuporous phase. We do it only on the assumption that it is the same underlying condition which is responsible for the so different manifestations. The series of questions that we should ask ourselves leads back in each of these phases to a final common answer, which is still an unknown *X*. But it is an *X* and not a *Y* or a *Z*. On no other ground are we justified in making the same diagnosis.

Similarly, when we make a diagnosis of dementia præcox, whether of the hebephrenic, the katatonic, or the paranoid forms, our only justification for making it is the assumption that the same fundamental alteration or condition lies back of each case, whatever the surface manifestations may be, that lies back of all the other cases that we call dementia præcox. The final common answer to our series of questions, the final inference in our series of inferences is a yet unknown quantity, a *Y*, if you please. But it is not an *X*, or we should make the diagnosis of manic-depressive psychosis.

Though we do not know what either the *X* or the *Y* are, we must assume them to be different, even though in many cases each may give rise to symptoms which on the surface may look alike (as do the stupor of manic-depressive psychosis and the katatonic phase of dementia præcox), just as we had to try to make the differentiation in the case cited between general paralysis and manic phase of manic-depressive psychosis.

In the same way we should make all our other diagnoses, whether we reach a relatively well-known fault, as in general paralysis, or an unknown condition as in dementia præcox. In each case, however, our only scientific justification for making a given diagnosis is our belief that the same fundamental alteration or condition, whatever it may be, known or unknown, lies back of it that lies back of all other cases in which we make the same diagnosis.

That the differentiation is difficult, or even in the present state of our psychiatric knowledge oftentimes impossible, and that it often leads to unknown quantities, is no reason why we should cease to make the attempts or deny the application of the principles of all other diagnosis to this special problem. It should, on the contrary, only stimulate us to set the problem more clearly before us and work the harder to get at the real essence of the underlying fault.

In actual practice we use short cuts. Instead of going through the full process of observation and reasoning that has been outlined we look for a pathognomonic sign or group of signs. Shortening of the leg and eversion of the foot following a fall and injury to the hip so often mean impacted fracture of the neck of the femur that, finding that triad, we look no further, but make the diagnosis

at once. So in psychiatry, the grouping of resistiveness, mutism, delusions and hallucinations is often translated "dementia præcox"; psychomotor retardation, thinking difficulty and despondency are usually diagnosticated as manic-depressive depression; overactivity, elation, flight of ideas too often spell manic phase; rather elaborate delusions in a person not too obviously confused or demented is diagnosed paranoia, etc. That is, we look for pathognomonic symptoms or symptom groups.

Making diagnoses in this way saves time, energy and thought, but it leads to errors, and the habit of making them in that way unfits one for solving the problems which arise in the doubtful or puzzling cases. It also stops the search for further causes or conditions, setting up a false aim for study and investigation.

Another fault in our practice is, when we find one possible cause for any given symptom or symptom group, to be satisfied with that, instead of looking further for other possible causes or conditions. For example, if there are positive findings in blood and spinal fluid in a patient with mental symptoms, we are tempted to make a diagnosis of general paralysis, even though there may be no other physical signs, and though the symptoms may be those of a manic-depressive depression with what would be regarded as quite adequate causes for such an attack in a non-syphilitic. I have such a case in mind, unfortunately not elucidated by autopsy.

Similarly, if we find psychogenetic origins for many of the symptoms in a case of dementia præcox, we should nevertheless look for other possible causes, somatic, social and developmental as well.

We need to distinguish between the cause or causes of the *disease*—that is, why the patient has any disease at all—and the causes of individual *manifestations* of the disease; that is, why, having the disease (as dementia præcox) he has this or that symptom of it. Psychoanalytic procedures often give information as to the latter, but alone are inadequate to answer the question, "Why is the patient ill?" We should expect, and we usually find, if we look for them, multiple causes for the onset of the illness itself. It is not enough to know that a general paralytic had syphilis; for, since probably only from 4 to 5 per cent of known syphilitics become general paralytics, some other factor or factors must contribute to the onset of the attack to lessen the

resistance of the patient. If we would really understand the etiology of general paralysis we must consider all the other possible contributory factors. What applies to this disease applies with equal force to all the psychoses.

We need to remember, too, that the underlying condition does not give rise to the symptoms of the disease directly, but usually only through a chain of mechanisms. It is for this reason that we have to make our series of inferences, many of the terms of which are themselves inferences or judgments instead of facts.

For the purpose of reaching a diagnosis we have then to weigh the value of symptoms, not for their face value only, as modifying the patient's social relations for example, but for what they may indicate of the underlying alterations of structure or of function.

It is not *that* the patient has this or that symptom, as mutism or resistiveness, but *why* he has it that is important. It will be for different reasons in different cases.

We may find he is mute because of delusions, because of perplexity, or because of pure negativism, and we still must inquire why he has the delusions, the perplexity, the negativism; we must seek not only their psychogenetic origins but the physical origins as well.

Symptoms after all are either direct or indirect manifestations of altered functions, and our search should be for these altered functions, and then as to why they are altered and what alters them. It is often as important to know what a patient cannot or does not do as what he does and can do. It is only by such search that we can get the most complete and accurate concept of what lies back of all the symptoms, whether it be the presence of something that should not be there or the absence of something that should, or both.

Above all, we need to remember that the tagging of a diagnostic name to the illness of a patient is a comparatively insignificant part of our work with and for him. We should be ready to say, "I don't know," and to class the case as undiagnosed rather than satisfy ourselves by making a guess or assuming a knowledge that we do not possess. Then we have groups on which to put special efforts for study and analysis.

The difficulties are in many cases very great, and our success in solving them is so meager as often to discourage us in seeking the

mechanisms not only of the deeper alterations but of individual symptoms. In treating patients we almost perforce have to content ourselves with taking the symptoms at their face value and giving counsel accordingly. But this should not satisfy us. The principles and methods that have brought advance in other fields of medicine will do so in this—in time. Because they do not seem to help us in those cases in which we need so much help is no reason for discarding either the principles or the methods, but rather it should stimulate us to more persistent attack.

Psychiatry as a science is still very young. Our concepts of diseases are crude, still in the making. They should not be regarded as complete or fixed. But the principles and methods by which we seek to improve them should be those of all other science. That way alone lies the line of real advance.

A STUDY OF THE NEUROGLIA IN A CASE OF SARCOMA OF THE BRAIN.¹

By CHARLES RICKSHER, M. D.,

Pathologist, State Psychopathic Institute, Kankakee, Illinois;

Captain Medical Reserve Corps, U. S. A.

Recent studies have shown that the neuroglia is no longer to be regarded as playing only a passive part as a supporting tissue, but that it plays various other active rôles. It is especially prone to proliferate under inflammatory conditions and in various pathological states, and this tendency is probably more marked in the neuroglia than in any other type of cell in the body, and it is seen especially well in new growths in the brain. Exactly what the exciting cause of this increase in number of cells and fibres is, and what is the part played by the proliferated cells, can be determined only by further study and improved histological methods.

The study of the neuroglia, especially in cases of the so-called reactive gliomatosis, is an extremely interesting one, and it is to be hoped that in time some light may be thrown on the various functional activities of the cells by means of investigations made of their various pathological manifestations. The types of cells vary greatly even in the same process, and we are yet ignorant of the part played by each type and of their importance to the organism.

In the following article, an attempt is made to describe the various neuroglia cells which were found in various parts of the brain in a case of sarcoma, which ran a comparatively rapid course, leading to death within eight months after the first symptoms were noted.

The following is an abstract of the clinical history of the case studied:

H. M. S., white, male, age 49, farmer, of English-Irish descent. Patient was a normal child, his physical and mental development were normal. Normal birth, no history of any illness during childhood obtainable.

¹ A contribution to the William Leonard Worcester Memorial Series of Danvers State Hospital Papers, presented November 19, 1915.

Adolescence was normal. No sickness or weaknesses discoverable. High-school graduate, one year college work. A good reader and thinker. Sociable, and a sensible church-worker. No eccentricities. Height, 5 ft. 6½ in. Weight, 160 lbs. Bluish-grey eyes, brown hair, clear healthy skin. No venereal diseases, no alcohol, no tobacco. Regular habits in eating and sleeping. Three living brothers, ages 59, 54, and 47—all healthy men, except the one aged 47, who is somewhat eccentric. They all have normal children. One brother died in infancy of bowel trouble, and one aged 24, of typhoid fever. One living sister aged 56, normal and healthy with normal offspring. No sisters dead. Father of English parentage, farmer, healthy and normal, no alcohol or venereal disease. He died at the age of 78 with fractured femur. Mother healthy, except for mitral insufficiency, died at age of 84 of cardiac dropsy. She was of Irish parentage. The history of the aunts and uncles reveals no insanity, epilepsy, alcoholism or tuberculosis. About 1905, he had an infection of one deep cervical gland, which was drained and while resolution was slow, it seemed to be perfect. He was married, wife living and healthy, living children as follows: male, 21, four female children ages 19, 17, 16, and 12, all normal. No children dead.

The present illness began apparently in January, 1915, at which time he slipped on an icy cement step, striking severely on his occiput. There was no unconsciousness, no noticeable eye symptoms, no headache or vomiting following this fall. However, between this time and June, 1915, he had two attacks of muscular twitchings of the left thigh and one attack affecting the left arm.

He visited a physician, June 8, 1915, saying that he had fallen from a fence while walking on the top board, which was about 3 ft. high. He had sprained his wrist slightly, but thought that it did not amount to much, but his left arm and leg felt heavy. A slight contusion of the skin over the right temporo-frontal region, indicated where he had struck the ground with his head. He could not remember that he had any vertigo that caused him to fall, but said that after the fall he was dazed for a couple of minutes, but soon went on his farm overseeing his work. The fall had occurred on June 3, 1915.

On June 11, 1915, he again called on his physician, saying that there was more heaviness and numbness of the arm, and the examiner found a perceptible dragging of the left leg. He could walk a straight line, no Romberg symptom, no inequality of the pupils, normal light and accommodative pupillary reflexes. There was no headache, no vomiting, no squint. Temperature normal, appetite, sleep, kidney and bowel action were normal. The left patellar reflex was slightly increased, the skin reflexes were normal.

He was seen again on June 15, 1915, and ordered to stay in bed. His general symptoms were about the same, except for a slightly increasing numbness of the right arm and leg, and a noticeable lack of co-ordination of the arm movements. Chemical and microscopical examinations of the urine were negative. Blood pressure: systolic 130, diastolic 90. Tempera-

ture 99.2. From this time on, the patient had a steady progressive increase of the arm and leg pareses. No other muscles were involved. Taste sense normal, and hearing and intellect were good, except for the gradually increasing stupor. He remained with his eyes closed practically all of the time, with almost a smile on his face, complaining of nothing, asking for nothing, but accepting food and drink when offered, and answered simple questions. When asked any questions which required any effort to answer, he would say, "Don't bother me with it. I am out of it."

At the time when the muscular pareses were at a stage that he could not of his own volition use his arm, he could raise it at the command of another. At a later period when this was not possible, a deep sigh or stretching would make it possible for him to raise the arm. Finally, there was a plastic paralysis of the arm and leg. The great toe showed a sluggish Babinski reflex. On and after the fifth week, urine was voided involuntarily. Bowel movements were sluggish and the bowel was emptied by the use of glycerine enemata. The last four weeks before death, he could talk only in a whisper. For a period of about two weeks in the early part of July, the patient would grasp the corner of his pillow, and give it a rhythmic, easy jerk for hours at a time; again, with his index finger he would scratch his chest or nose for long periods. This was all done with his right hand. He died from exhaustion, August 15, 1915.

The brain only was removed for examination.

Gross Description.—The right hemisphere containing the tumor was received at the laboratory on August 18, 1915, in 10 per cent formol. On the mesial surface was seen a greyish mass projecting about 1 cm. above the surface. The edges of the mass were ragged and the line of demarcation between the tumor and brain substance was plainly seen. The tumor lay just above and partly involved the body of the corpus callosum, extending upwards a distance of 5 cm. and also involved the gyrus cinguli and the lower part of the paracentral lobule. Antero-posteriorly the tumor measured 4 cm. The genu and the splenium of the corpus callosum were not involved in the growth.

The tumor was covered with a thin membrane, which resembles the pia, but the pial vessels cannot be traced beyond the edge of the tumor. Many small vessels are seen on the surface and can be traced for short distances, but are soon lost. No hemorrhagic areas are seen.

On section of the brain, 1 cm. posterior to the tip of the temporal lobe, the roughened cut surface of the tumor is well seen. There is everywhere a fairly sharp line of demarcation between the grey tumor and the brain tissue. The tumor tears away from the brain tissue easily, and in examining it some tears are made. Below, at the junction of the tumor and callosum, the tumor shows rather a greenish, gelatinous appearance, and this part shades gradually into the white matter of the callosum. The ventricle is flattened, and the lenticular and caudate nuclei are pushed downwards and flattened.

The second section was made 2 cm. posterior to the first. Here, the line of demarcation between the tumor and brain tissue is much more

marked. Above, there are numerous blood vessels at the border of the tumor, while externally there is a somewhat yellow, softened area between the tumor and medullary brain substance. The third section made 2 cm. posterior to the second, shows practically the same sort of demarcation.

The cut surface of the tumor is greyish in color, with many dark spots representing the cut surface of blood vessels. The vessels are most numerous at the periphery, where in places they form a dark border to the tumor. No definite areas of softening are to be found in the tumor. Below, at the junction with the corpus callosum, is found a light green area, gelatinous in consistency, which seems translucent in thin section. This area measures roughly 3 mm. high by 5 mm. long and grossly shows no structure.

The white matter surrounding the tumor is much softened and is almost semifluid in consistency. When a section of the hemisphere is laid in a horizontal position, one notices a definite depression due to the sinking of the softened white matter. This is shown in Fig. 1 where the depression is seen as a black shadow in the medullary substance.

MICROSCOPIC EXAMINATION.

Technique.—For the demonstration of the neuroglia, various methods have been employed. Merzbacher's Victoria blue method with frozen sections, has been most extensively used. Mallory's phosphomolybdic-hæmatoxylin and Mann's methyl-blue eosin as modified by Alzheimer, have also been employed. Cajal's sublimate-gold method was also of value. Scharlach R was used for the demonstration of lipoid material and Bielschowsky's silver method was used for neurofibrils.

Paraffin sections were stained in hæmatoxylin and eosin; hæmatoxylin and Van Gieson and the various aniline dyes, thionin, toluidin blue and cresyl-violet were used for nerve cells. The elastic fibres of the blood vessels were stained by Weigert's resorcin-fuchsin method.

I. SPECIMENS FROM THE CENTER OF THE TUMOR. FIG. 1 (1).

The specimens stained with the various neuroglia stains, were all pale with the exception of small areas, which, as a rule, stained rather deeply blue.

Under the low power, it is seen that the greater part of the section is made up of tumor cells while only in the small blue areas are any cells with fibres seen. The tumor cells are only slightly tinged with blue in the well-differentiated specimens, but many of them show many darkly staining granules in the cell protoplasm. In the Scharlach specimens, many fat droplets are seen in these cells.

Under higher magnification, the small areas are found to contain masses of neuroglia cells and fibres which form a dense network almost filling the space. Neuroglia cells are found only in these circumscribed areas. Some of the cells are quite large and their fibres are markedly thick, while others

are small and give off thin fibres. The following types of cells may be found:

1. Large, more or less rounded, cells with a comparatively small eccentrically placed nucleus. The cell body is comparatively large and in it is seen many small, dark, round or rod-like granules which are stained a deep blue. Some of these, especially the rod-like variety, resemble parts of fibres which run through the cell, but no definite fibres can be traced from the processes through the cell. The fibres run in all directions from short processes, weave themselves between other fibres in the neighborhood, and may be followed for varying distances. The fibres differ somewhat in size, even in those coming from the same cell, although the majority seem to be of the same calibre. It is possible that this apparent difference in size is due to some fibres being more differentiated than others. A few of the fibres seem to run directly from the cell body, but the majority proceed from short, protoplasmic processes. In the Scharlach specimens, many of these cells show fatty granules in the body protoplasm.

2. Small, round cells of the same general shape as those noted above. The body protoplasm, however, stains more deeply and the nucleus is not nearly so sharply differentiated. Some of these cells show a light round spot in the cell body, somewhat resembling a vacuole, the exact nature of which was not determined. The fibres are thin and seem to extend directly from the cell body. They are of considerable length and may be traced for a comparatively long distance weaving in and out of the fibres from the surrounding cells. The network formed by these fibres is not so dense as that formed by the cells of type one.

3. Small, spindle-shaped cells with darkly staining, centrally placed nuclei, are found especially frequently near the periphery of the area. The fibres are thin and run tangentially so that they help to form a fibrous network between the tumor cells and the area.

4. Scattered through the network, one finds large round or oval nuclei about which no protoplasmic body can be found nor can any fibres be seen running from them. They contain many fine, bluish granules which are especially numerous about the periphery, but may also be found in the central portion. In size, in general contour and general arrangement of chromatin elements, they resemble the nuclei of the large cells, but they differ in not possessing a cell body and fibres.

In the specimens stained with Scharlach R, numerous fatty granules are seen in the cells of all the types. In the larger areas, one occasionally finds a rather large droplet lying alone without any visible cell body or nucleus near it. This probably represents a cell which has entirely undergone degeneration.

In only one of these areas could a blood vessel be found. This vessel showed considerable fatty degeneration of its walls and contained only a few red blood cells.

With the stains used, nothing could be seen that resembled an axis-cylinder process.

The areas were not numerous, there being only three or four in a section. They are entirely surrounded by tumor cells and probably represent bits of brain tissue which have become enclosed and are undergoing degenerative changes. The large fibres and cell bodies may represent a reaction to the toxins formed by the tumor or may be simply a change in the nature of the cell before it finally degenerated.

II. SPECIMENS FROM THE MARGIN OF THE TUMOR AND THE CORPUS CALLOSUM. FIG. 2 (2).

The connection of the tumor to the corpus callosum is a very loose one, and frozen sections showing both structures are obtained only with difficulty. The margin of the tumor is made up of blood vessels which have little connective tissue supporting them, and consequently they break apart very easily. The tumor cells surround the vessels, but do not infiltrate the corpus callosum, but instead advance by pushing away the structures in front of them.

Just beneath the layer of blood vessels belonging to the tumor, is a rather thick layer of finely interwoven neuroglial fibres of comparatively small calibre. The fibres tend to run in a general direction tangentially to the margin of the tumor, but a considerable number weave about in all directions. In the mass of fibres are seen quite a large number of neuroglial nuclei about which no protoplasmic body can be seen.

Deeper in the body of the corpus callosum, there is found a slight increase in the number of neuroglia cells. For the greater part these cells are of the bipolar, spindle-shaped variety with fibres extending from the poles and the nucleus occupying the center of the cell. The fibres extending from these cells are thin and may be followed a considerable distance. Comparatively rarely are found small, round nuclei about which is seen a thin layer of protoplasm from which radiates a number of long, thin fibres.

None of the neuroglia fibres in the body of the corpus callosum are of great diameter, and their calibre is the same throughout their entire extent.

No blood vessels are seen in the substance of the corpus callosum in any of the sections.

III. SPECIMENS FROM THE EDGE OF THE TUMOR AND THE CORTEX. FIG. 2 (3).

Above the superior surface of the tumor is a small tongue of apparently normal cortex which forms a sort of roof over the tumor. This brain substance does not extend completely to the mesial surface of the tumor, but only fills in the outer angle formed by the curved outer surface. With the low power it is seen that the margin of the tumor is very vascular and that the tumor cells, which apparently originate in the adventitia of the vessels, are in an active state of proliferation. (Fig. 6.) Some are giant cells with several nuclei, while others show two nuclei. Mitotic figures are seen in a number of the cells.

No enclosed areas of neuroglia cells and fibres such as are seen in the central portion of the tumor, are to be found in this region.

In the white matter outside the tumor area, large numbers of neuroglia cells and fibres may be seen with the low power. In the grey matter, few fibres are seen except in the outer layers of the cortex.

With higher magnification, a considerable number of cells with protoplasmic processes and fibres are to be found. The outer layers show a great increase in the number and size of the neuroglia cells. The fibres are fairly large and form a thick network weaving in and out between themselves. The so-called marginal zone is quite thick and is formed of a dense network of large fibres which form a considerable mat over the surface of the brain. These fibres are of larger calibre and stain more deeply than those forming the network in the layers lying below it.

The following types of neuroglia cells may be differentiated:

1. Large, irregularly shaped cells with an eccentrically placed nucleus and many fibres which usually radiate from a rather large protoplasmic process. The nucleus is oval and stains fairly deeply. The cell body stains more lightly and is quite irregularly formed, resembling somewhat an amoeba in shape. The protoplasmic processes extend outwards and from their extremities run deeply staining fibres which may be traced for varying distances into the brain substance. After leaving the processes, the calibre of the fibres remains the same as far as they can be traced. Some of the cells apparently belonging to this group, have more rounded and less irregularly shaped cell bodies, and in these the protoplasmic processes are not nearly so long. In some of these cells, collections of pigment may be found.

2. Much less numerous are rather long, spindle-shaped cells with a central nucleus and a protoplasmic body. The body of the cell at the middle is only slightly larger than the nucleus, but it may be distinctly seen at the ends of the nucleus where it extends outwards as a protoplasmic process, from which arise several fibres. Some of these cells are quite spindle-shaped and taper at the ends, others have blunter ends and several fibres arise from each end.

3. In the white matter and especially numerous in the grey matter, are found round or oval nuclei with only a narrow rim of protoplasm about them. The nuclei contain many chromatin granules placed, for the most part, at the periphery. The cell body stains very lightly blue in the Merzbacher specimens, and in some cells cannot be distinguished at all. In some, a faintly staining protoplasmic body may be seen only at one side of the nucleus. In the grey matter, the body of many of the cells cannot be seen, but the nucleus is surrounded by a clear area in which the body may be said to be.

The nerve cells in the cortex show few degenerative changes which are demonstrable in the Merzbacher specimens. The nucleus is centrally placed and the nucleolus stains well and is not abnormally shaped. The cell body shows no vacuolization, but a few cells show an increase in the pigment masses.

Blood vessels are not numerous in this part of the cortex, and their walls show nothing especially abnormal.

IV. SPECIMENS FROM THE SOFTENED MEDULLARY PORTION. FIG. 1 (4).

The white matter surrounding the inner side of the tumor was in a much softened condition and on section one saw a marked sinking in this area when the cut surface was placed in a horizontal position. After hardening in formol, the part was more solid than at first, but was still of a putty-like consistency.

The sections all showed a very marked increase of the neuroglia cells, even under the low power. The sections, stained according to Cajal's sublimate-gold chloride method, show an enormous number of cells, round and pyramidal in shape with processes extending in all directions. Figures 3 and 4.

The Merzbacher specimens under the low power show a great number of large, irregularly shaped cells with thick processes, cells more or less round with thin processes, and nuclei without visible cell bodies and spindle-shaped cells with centrally placed nuclei.

With the higher powers, the following types of neuroglia cells are seen:

1. Very large, irregularly shaped cells with small nuclei and large protoplasmic cell bodies and processes. The nuclei are eccentrically placed and contain much chromatin material which stains dark blue. The cell bodies stain a lighter blue and the protoplasm is usually homogeneous in structure, but in a few cells one sees darker staining masses which would indicate a more dense structure. The protoplasmic processes are large and from the ends of them radiate a large number of fine fibres which extend outwards in all directions. After leaving the processes, the fibres retain the same calibre throughout their extent. A few fibres may be seen running in the substance of the protoplasmic processes and occasionally a few are seen running through the cell body. The cells of this type vary considerably in size and shape, some of the cell bodies being round, some ovoid and others of an irregular, quadrilateral outline. All of them, however, have a large number of fibres arising from various parts of the cell. In some of the cells, two nuclei may be seen, but no mitotic figures were found.

Under the higher powers, it is seen that the cells which under low power showed very thick, dark-blue processes and the round cells with many processes, belong to practically the same group. The cell bodies of some of the cells, being more pale, were not visible under the low power.

2. Spindle-shaped cells with centrally placed nuclei and rather dark staining protoplasmic bodies and processes are quite numerous. They are long cells, the nuclei occupying nearly all the center of the cell body with only a narrow rim of protoplasm on the sides. The processes are placed at each pole and from each of them several fibres are given off. The fibres are thin and quite long, many of them being traced for a long distance across the field.

3. Large numbers of round or oval nuclei with a small protoplasmic cell body surrounding them, or without a visible cell body, are very numerous. These nuclei vary somewhat in size and staining qualities, some staining rather lightly and others in the same neighborhood taking a heavy stain. These nuclei all contain much chromatin material arranged rather symmetrically.

The cell bodies stain a light blue with Victoria blue, but in them one may find certain granules which stain more darkly than the surrounding protoplasm, but not so deeply as the chromatin granules in the nuclei. The granules are very fine and are scattered without order in the body protoplasm.

In some of these cells the body protoplasm is seen only on one side of the nucleus; in others a small rim is seen on one side and a fairly large mass on the other. About a few of the nuclei, one sees a clear space bounded by a thick, darkly stained, narrow ring, which probably represents the outline of the cell body, although no structure is visible between the ring and nucleus.

4. Cells with small nuclei placed at the end of rather a large protoplasmic body. The nucleus is oval and contains a considerable amount of chromatin granules. The cell body is fairly large and there are many fine fibres arising directly from it or from short protoplasmic processes at the end of the body opposite the nucleus. The fibres are very fine and short, and none are seen running into or through the cell body. These cells are found in fairly large numbers throughout this area. They vary in size, but the form remains fairly constant. Occasionally, small granules are seen in the cell body.

In every field are found heavy, darkly staining, wavy processes, the axis cylinder processes of the nerve cells in the cortex.

In Scharlach preparations, a great amount of fatty degeneration is seen in the neuroglia cells. The fat droplets are arranged about the nucleus and in some instances are of quite considerable size.

V. SPECIMENS FROM THE CAUDATE NUCLEUS AND INTERNAL CAPSULE.

FIG. 1 (5).

In these specimens the blood vessels are seen in much greater numbers than in any of the preceding group. Only along the ventricles, however, do they show a great increase in the neuroglia fibres surrounding them, but there they show a thick, matted network of fibres running in a circular fashion about the wall and forming a much-thickened wall.

The neuroglia cells are numerous, but little except nuclear structure can be distinguished except along the border of the ventricle.

One sees many oval or round nuclei containing many chromatin granules, but with little or no cell body surrounding. Many fine fibres are seen running in all directions away from the nucleus and often one is able to trace the fibre from one side of the cell to the other as it passes along the side of the nucleus. These fibres vary in length but their diameter is

the same throughout their extent. In the depths of the section, these fibres are not closely woven together, but as one approaches the border, one sees a thick mass of fibres lying just under the layer of ependymal cells. These fibres are of about the same diameter as those in the central part of the section, but are much more thickly woven together.

In the meshes of the network are found a large number of nuclei, round or usually oval, which are not surrounded by any visible protoplasmic body. These nuclei are comparatively large as a rule, but many are quite small.

The ganglion cells seen in this section all contain considerable pigment in the cell body, and in many the nucleus is displaced by the mass. The nucleus is often irregularly shaped and stains irregularly. In the Scharlach specimens, a marked degree of fatty change is seen in the cells.

The blood vessels are small and the wall is formed of a single layer of endothelial cells for the greater part. The cells show considerable vacuolization and in the Scharlach specimens, fatty degeneration is quite marked.

VI. SPECIMENS FROM THE OPTIC THALAMUS. FIG. 1 (6).

In the specimens stained with Victoria blue, a considerable increase in the number of neuroglia cells is seen. The cells, as a rule, have no visible protoplasmic body, but radiating from them one sees numerous fine, blue fibres, many of which can be traced from one side to the other running by the side of the nucleus.

A certain number of the nuclei, however, are surrounded by a protoplasmic body from which project protoplasmic processes which give rise to fibres which pass outwards and interweave with other fibres. The bodies are stained a light blue and are small, extending only a short distance beyond the border of the nucleus. The processes are quite faintly stained and are short, extending only a very short distance from the cell body. The fibres are thin and are of the same calibre throughout their length.

Blood vessels are numerous in this region, but about none of them does one see any large number of neuroglia cells or fibres.

The ganglion cells in these specimens show many evidences of degenerative change. Practically all of them contain large masses of yellowish-brown pigment, the nucleus stains very darkly or lightly and apparently contains many vacuoles. In a few cells only a few chromatin granules are left in the nucleus and the nucleolus is entirely destroyed. Dark granules are scattered through the cell body, but no definite chromatin masses are found. Large globules of lipoid material are seen in specimens stained with Scharlach.

Sections from the parts of the brain some distance from the tumor and the surrounding softened area showed nothing abnormal. Blocks cut from the frontal, precentral, postcentral and temporal areas were frozen and sections stained according to Merzbacher's method. The cortex and some 5 mm. of white matter were included in these sections. In the frontal and precentral areas, the neuroglia cells stained perhaps a little more easily than was usual; that is, good specimens were obtained more

frequently, but the cells showed nothing abnormal either in number, size, or fibres. The marginal neuroglia were well marked, but no especial increase in the number of cells or fibres was noted.

SUMMARY AND DISCUSSION.

We have a man of 49 years dying some eight months after the appearance of the first symptoms pointing to a brain disorder. At autopsy, a large tumor was found on the mesial surface of the right hemisphere. On section, this tumor was greyish in color, solid and fairly sharply differentiated from the surrounding structures. The white matter surrounding the tumor is softened and is almost semifluid in consistency.

Microscopical sections show the center of the tumor to be made up of spindle-shaped cells, for the most part, while at the periphery, active proliferative changes are seen. These changes are especially well shown about the blood vessels where many multinuclear cells are found.

Sections of the tumor stained with the specific neuroglia stains show small areas in the tumor containing neuroglia cells and fibres. These cells are undergoing degenerative changes and the fibres are quite large.

In the softened medullary part of the brain, a great increase in the neuroglia cells is seen. These cells are of various types, some without fibres and in form somewhat resembling amœbæ, others variously shaped astrocytes, and a third group with extremely large cell bodies and processes.

Some objection might be made to grouping these last cells among the neuroglia cells, but they have been placed there because they occur in large numbers in tissue, which is the seat of a marked neuroglial proliferation; they are not of the same shape as the tumor cells which are seen in the hæmatoxylin and eosin specimens, and they stain actively with the specific neuroglia stains, which the tumor cells do not. The fibres are large, but they do not have the elongated cone shape of the sarcoma cell fibres.

At the border of the tumor are numerous blood vessels about which the tumor cells are most numerous and it is easily seen that the growth of the tumor is along the vessels. In the tissues outside this line of vessels are found some tumor cells, but these cells are rather more cylindrical in shape, the nucleus is more centrally placed as a rule, and the protoplasm and fibres do not

stain well with Victoria blue as do those of the neuroglia cells. The number of these cells seen in the Merzbacher specimens is much greater than the definite sarcoma cells seen in specimens stained with hæmatoxylin and eosin.

In the case reported by Merzbacher and Uyeda,¹ the gliomatosis was much more marked than in the present instance and the question of a gliosarcoma was raised. As differential diagnostic points, the authors give the following: (1) The method of growth: infiltrative growth of the glioma and expansive growth of the sarcoma, (2) the presence of medullated nerve fibres in the glioma, especially in the central portions, (3) the relation of the pia to the tumor: in the sarcoma the pia stands in every intimate relationship to the process and often cannot be separated from it; not infrequently the sarcoma springs from the pia, (4) the sarcoma is frequently disseminated along the vessels and especially by the perivascular lymph spaces. According to Borst, this perivascular proliferation speaks especially for sarcoma; (5) most important is the morphology of the cell, especially of the processes. In the sarcoma cells, many rayed, stiff fibres of the same calibre are never seen as they are in glioma cells. The fibres of the sarcoma cells decrease in thickness as they proceed and show many bendings, crooks and kinks.

The types of cells in the medullary part of the brain differ in size, shape and number from the cells which one normally finds there. In parts, at some distance from the tumor, no noticeable abnormalities in the cells are seen. This fact would indicate conclusively that the growing tumor is responsible for the increase in number and variations in types of the cell.

The rapidly growing tumor naturally causes considerable increase in intra-cranial pressure and must affect the nutrition of the surrounding parts to a considerable extent. Besides this, it is possible that some chemical irritant produced by the sarcoma might also produce great changes in the tissues, as well as acting as a cause of proliferation of the neuroglia.

That the neuroglia is a tissue whose only function is to fill up vacant spaces and to act as a supporting tissue, as Weigert

¹ Merzbacher & Uyeda: Das reactive Gliom und die reactive Gliose. *Zeitschrift für die Gesamte Neurologie und Psychiatrie*, Vol. 1, 1910, p. 285.

thought, has been disproven by many of the recent studies on the question. The phagocytic activity of the cells has been demonstrated by Alzheimer, among others, and it is extremely probable that in the present case the increase of cells in the softened medullary part, is due in great part to this function of the neuroglia. Many of the cells lack fibres and it is possible that these cells, especially, can assume the action of phagocytes. The large cells with large fibres may be neuroglia cells in a stage of dissolution. They stain rather diffusely; the cell body stains unevenly and contains granules which stain dark blue with Victoria blue.

Naturally, no definite conclusions can be drawn from the study of only a few cases, and it is hoped that various comparative studies will give more information concerning the types of cells found in these cases, and eventually their function may be more definitely revealed.

In conclusion, the writer wishes to express his indebtedness to Dr. George A. Lierle of Burton, Illinois, who had charge of the case and who furnished the history, and to Dr. Ralph T. Hinton, Superintendent of the Peoria State Hospital, who sent the brain to the laboratory.

EXPLANATION OF PLATES.

PLATE III.—Colored plate. Neuroglia cells. Figs. *A, B, C, D*, from area (4), Fig. 1. Figs. *E, F, G*, from area (3), Fig. 2. Drawings made from Merzbacher preparations, ocular 4, objective, immersion 1/12.

PLATE IV, FIG. 1.—Section through middle of tumor.

PLATE IV, FIG. 2.—Section through posterior third of tumor.

PLATE V, FIG. 3.—Microphotograph of Cajal specimen from area (4), Fig. 1. Zeiss objective *AA*, ocular 12.

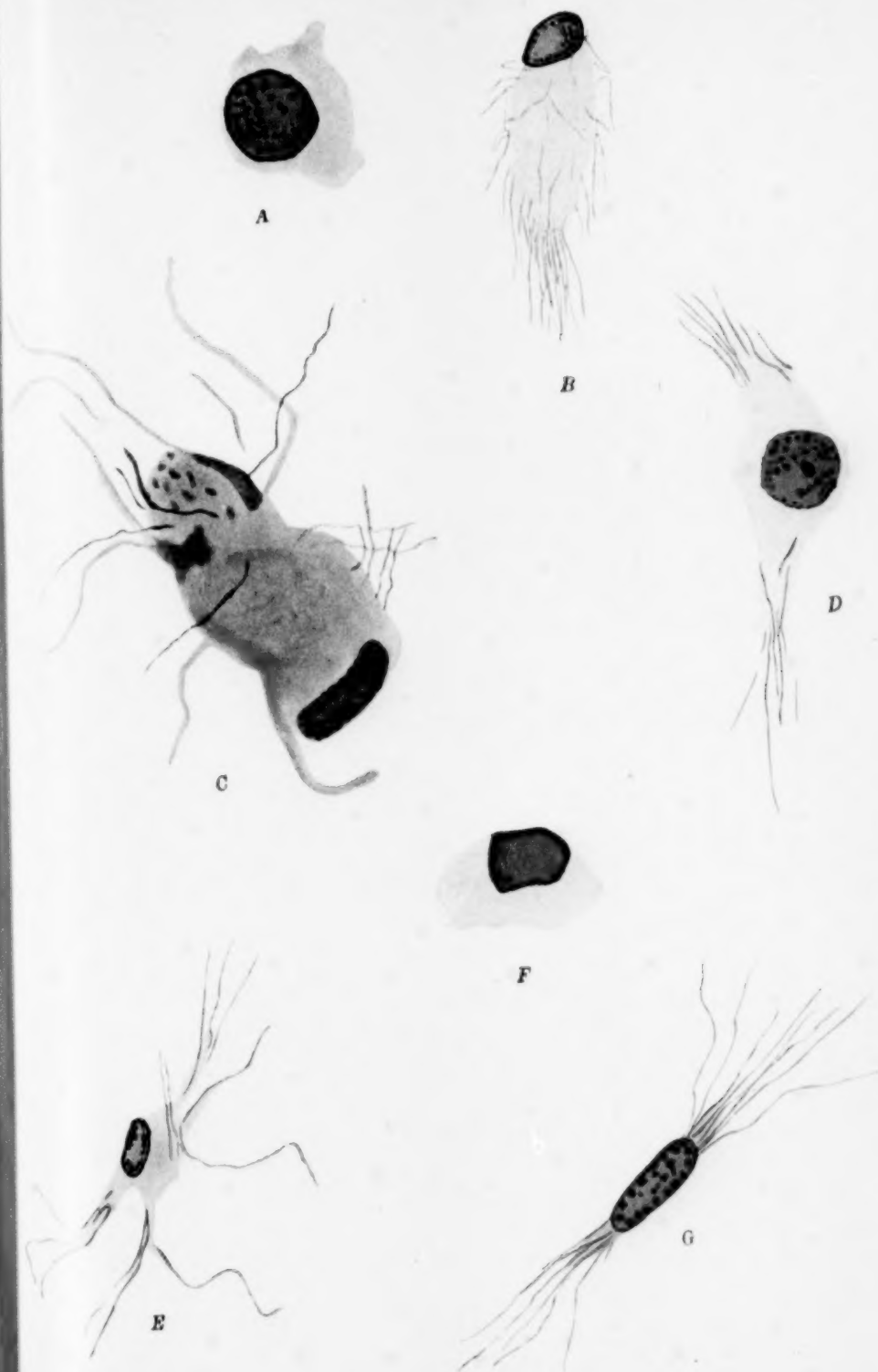
PLATE VI, FIG. 4.—Microphotograph, same region as Fig. 3, Zeiss objective 1/12, ocular 6.

PLATE VII, FIG. 5.—Microphotograph, same region as Fig. 3, Zeiss objective *DD*, ocular 6.

PLATE VIII, FIG. 6.—Microphotograph. Blood-vessels from margin of tumor showing cellular proliferation. From area (3), Fig. 2, Zeiss objective *AA*, ocular 12.

PLATES IX, X, XI, FIGS. 7, 8, 9, 10, 11.—Microphotographs. Neuroglia cells from area (4), Fig. 1. Merzbacher Victoria-blue stain, objective, immersion 1/12, ocular 6.

FIG. 12.—Microphotograph. Neuroglia cell from same area as above. Cajal gold-sublimite method, objective, immersion 1/12, ocular 6.



Neuroglia cells. Figs. *A, B, C, D*, from area (4), Fig. 1. Figs. *E, F, G*, from area (3), Fig. 2. Drawings made from Merzbacher preparations, ocular 4, objective, immersion 1/12.

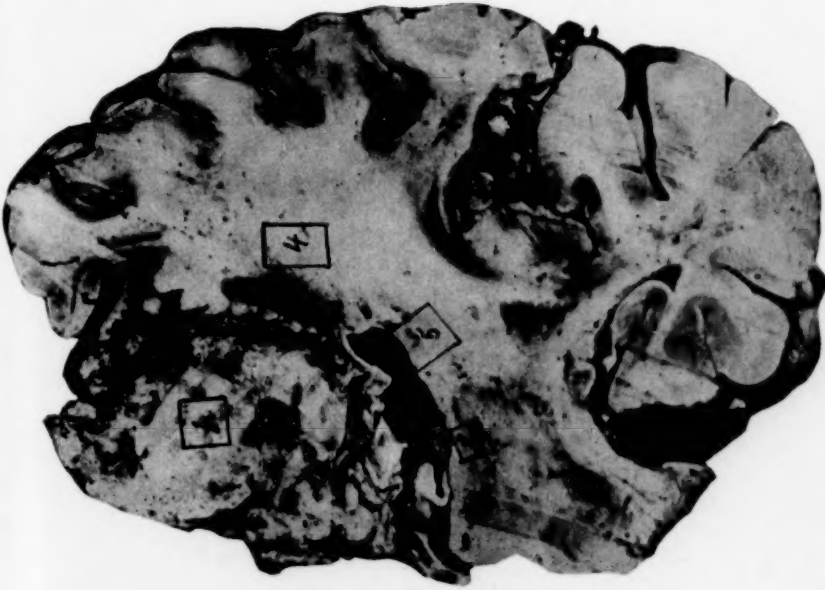


FIG. 1.—Section through middle of tumor.

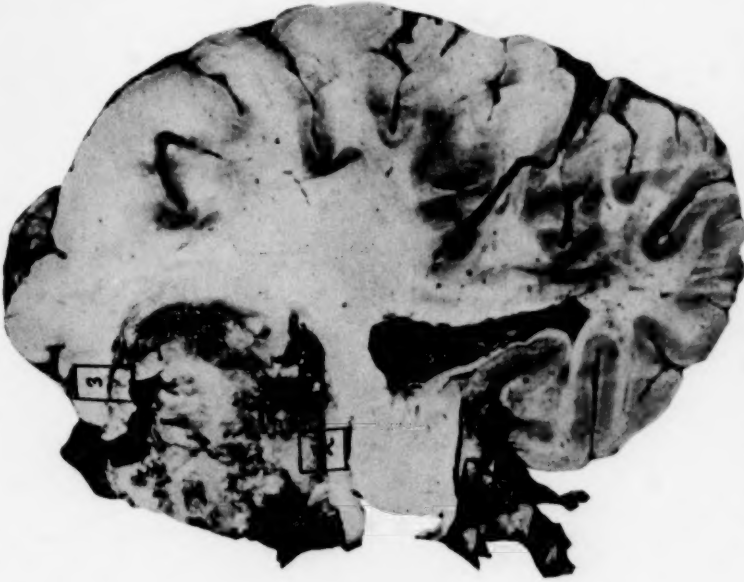


FIG. 2.—Section through posterior third of tumor.

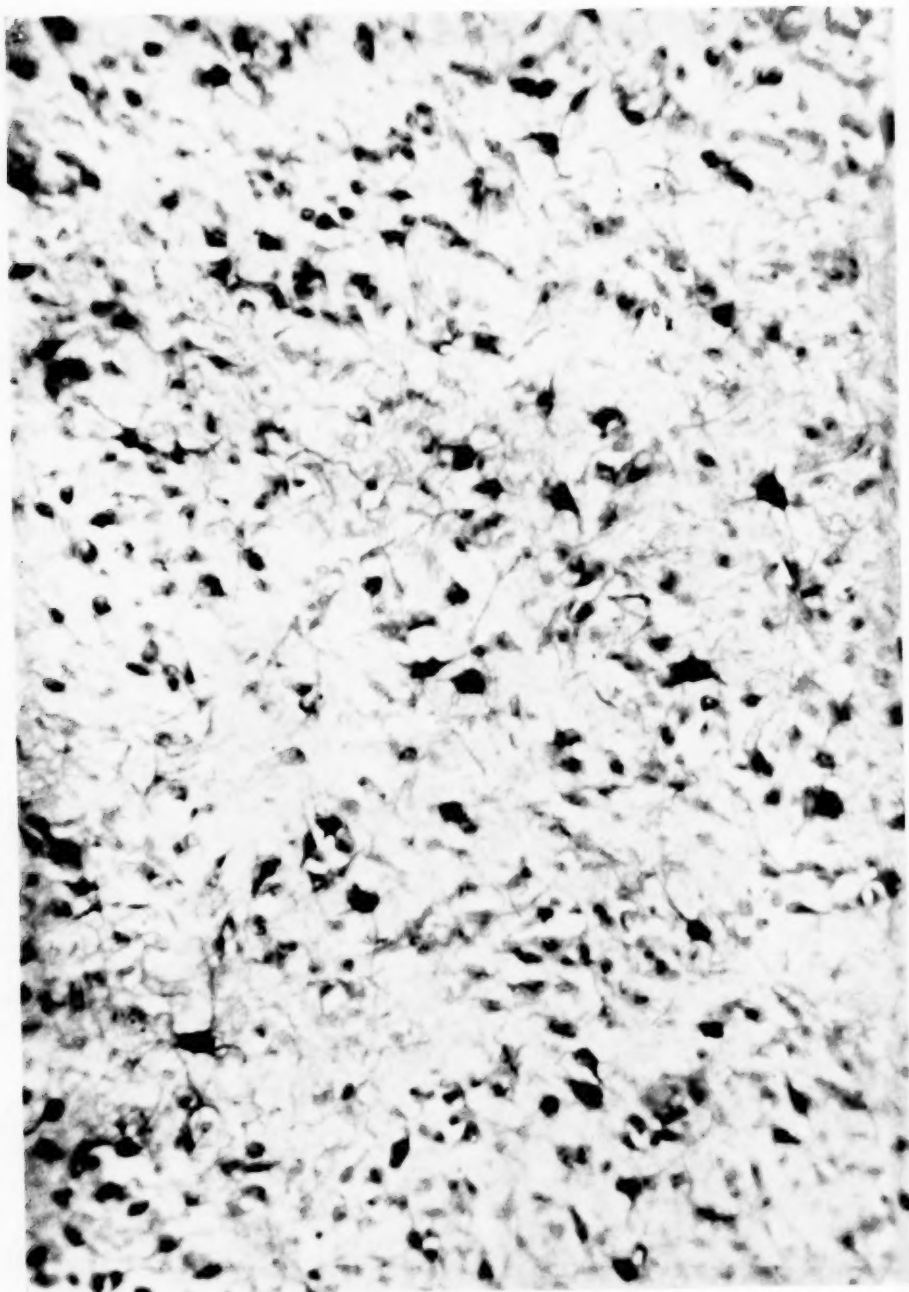


FIG. 3.—Microphotograph. Medullary portion of brain : 4; Fig. 1. Zeiss objective *no.* ocular 12.

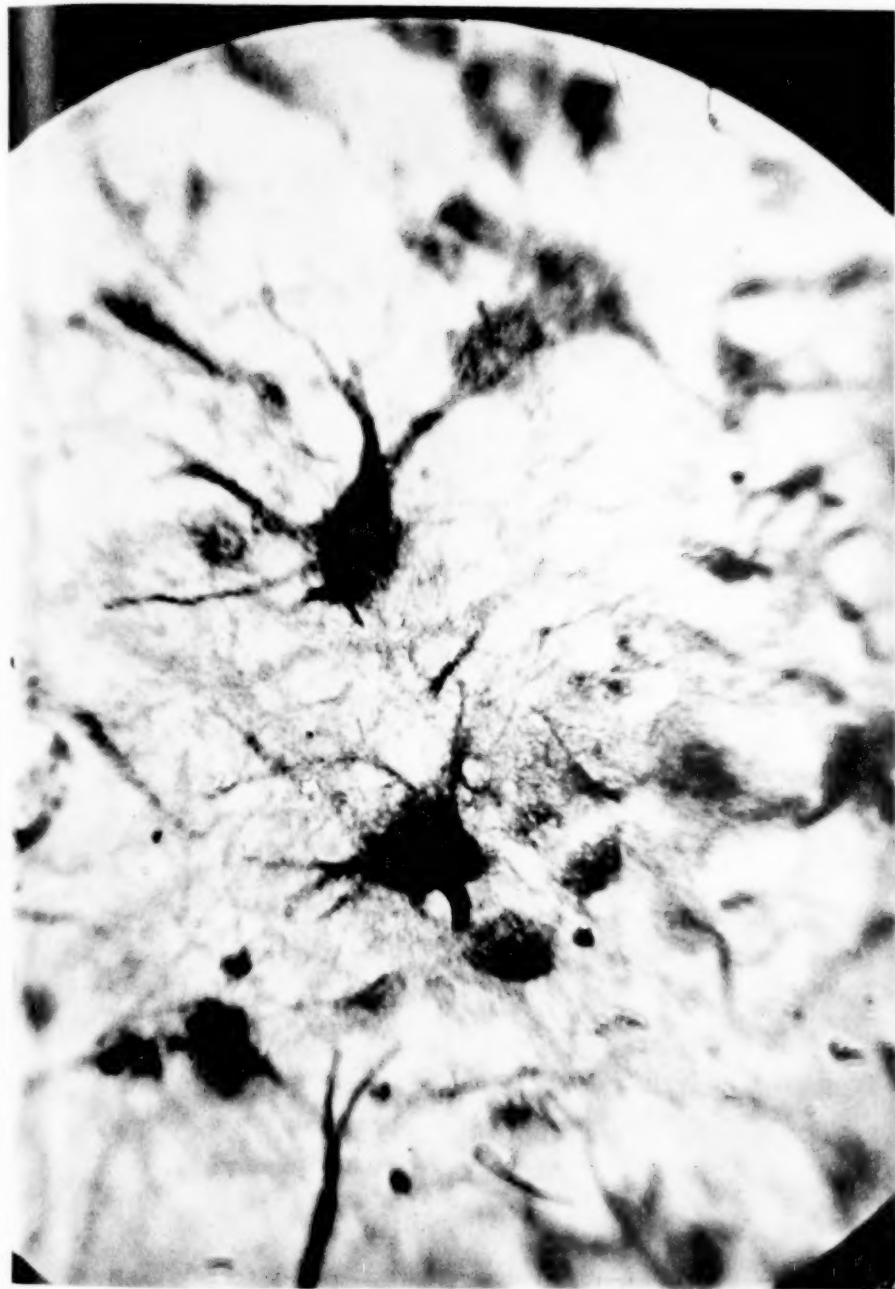


Fig. 4—Microphotograph. Same region as Fig. 3. Zeiss objective 1/12, ocular 6.

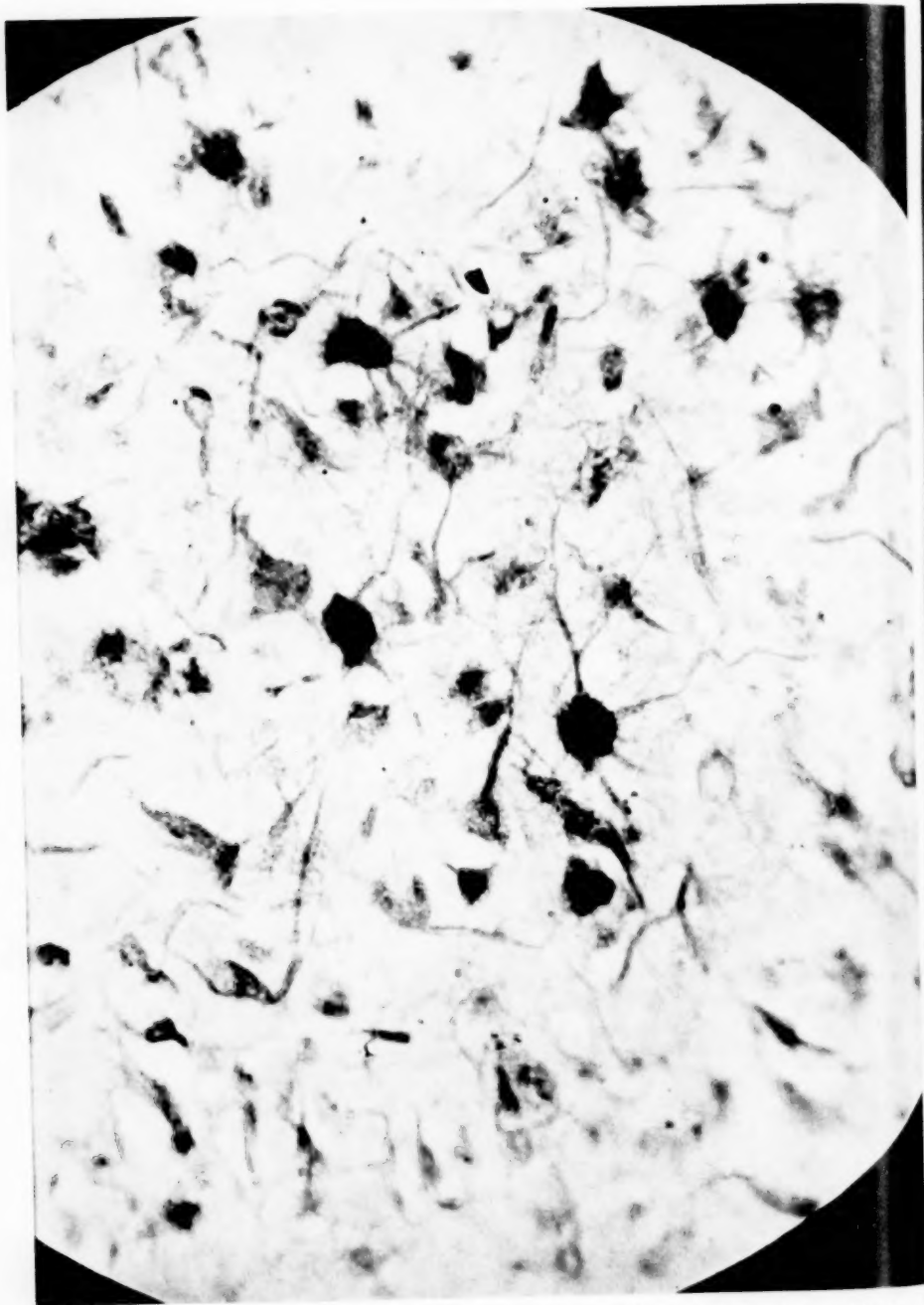


FIG. 5.—Microphotograph. Same region as Fig. 3. Zeiss objective 1/12, ocular 6.

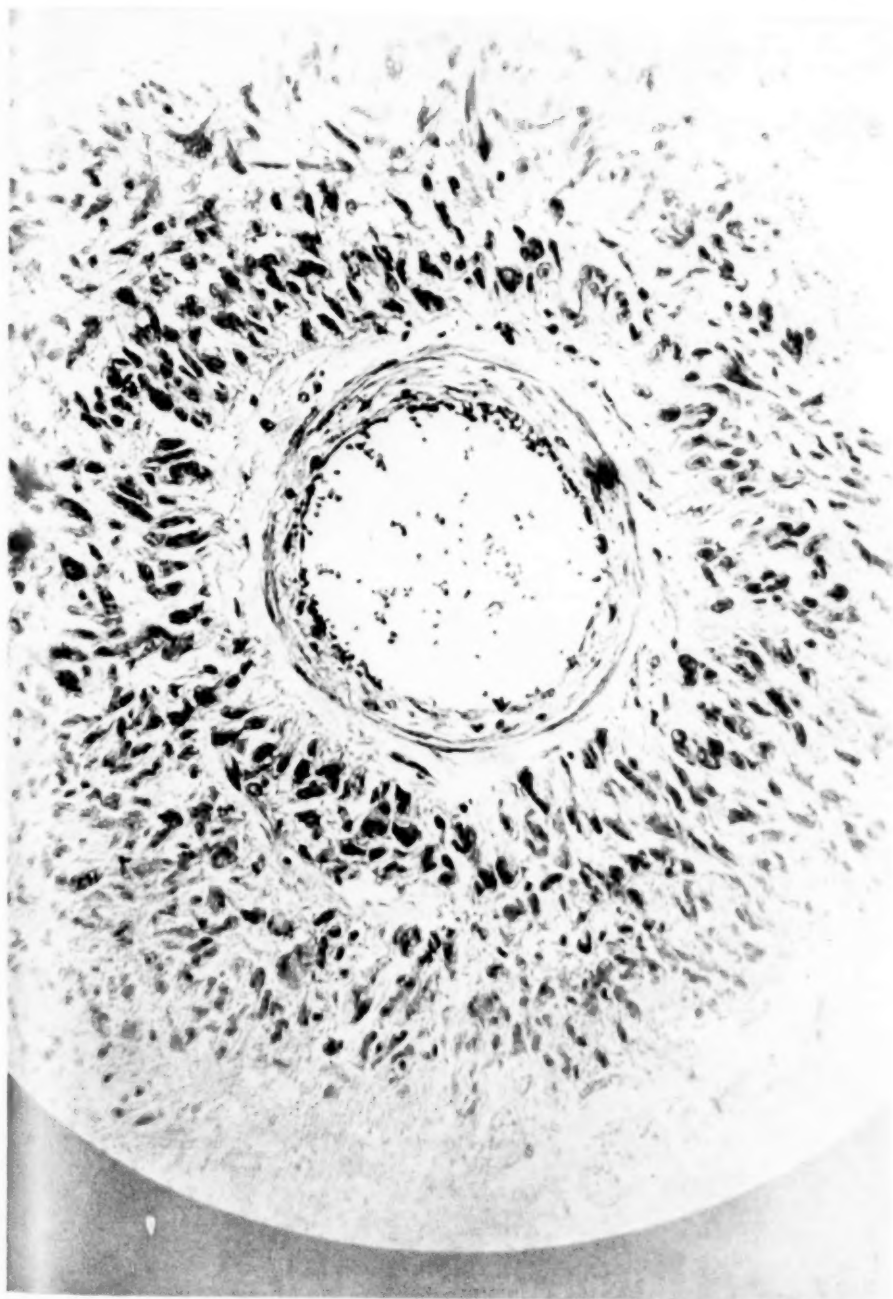


FIG. 6.—Microphotograph. Blood vessel from margin of tumor showing cellular proliferation from area :3: Fig. 2. Zeiss objective *oil*, ocular 12.

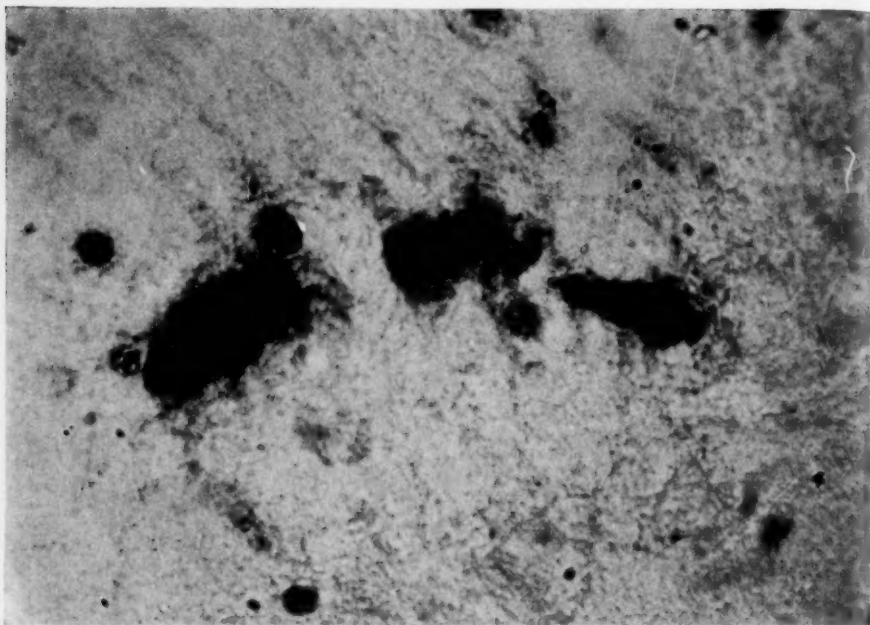


FIG. 7.

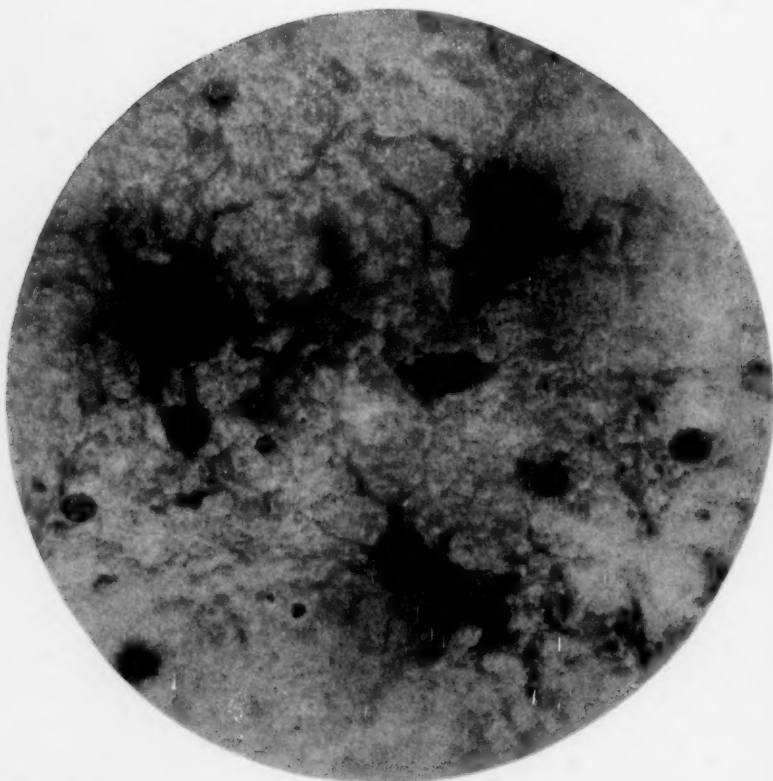


FIG. 8.

FIGS. 7 and 8.—Microphotographs. Neuroglia cells from area (4), Fig. 1.
Merzbacher Victoria-blue stain, objective, immersion 1/12, ocular 6.



FIG. 9.

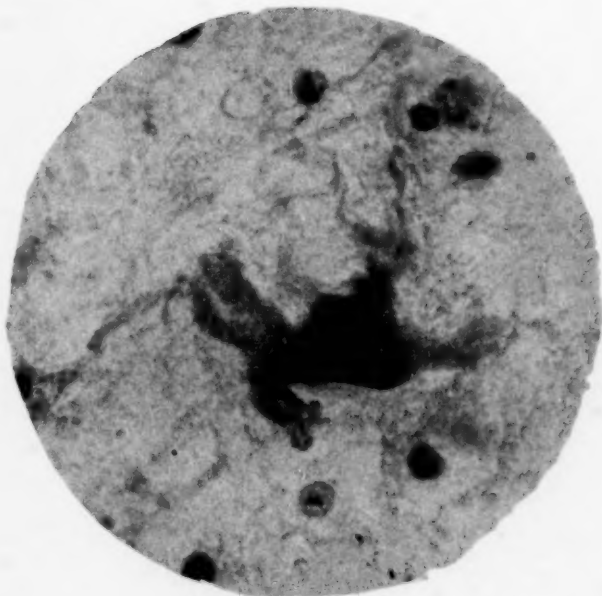


FIG. 10.

FIGS. 9 and 10.—Microphotographs. Neuroglia cells from area (4), Fig. 1.
Merzbacher's Victoria-blue stain, objective, immersion 1/12, ocular 6.



FIG. 11.



FIG. 12.

FIGS. 11 and 12.—Microphotographs. Neuroglia cells from area (4), Fig. 1. Fig. 11.—Merzbacher Victoria-blue stain. Fig. 12.—Cajal's gold-sublimate method, Zeiss objective, immersion 1/12, ocular 6.

CLINICAL AND ANATOMICAL ANALYSIS OF TWO CASES OF MULTIPLE SCLEROSIS.*

ONE WITH A LESION IN THE PARIETAL LOBE; THE OTHER WITH
SPINAL FLUID FINDINGS INDICATIVE OF SYPHILIS.

By LAWSON G. LOWREY, A. M., M. D.,

*Assistant in Neuropathology, Harvard Medical School; Chief-of-Staff,
Psychopathic Department, Boston State Hospital; formerly
Pathologist to Danvers State Hospital.*

Multiple sclerosis is apparently less frequent among the insane than among the general population. Our index cards show a total of 5 cases in 19,500 admissions, while Starr (p. 682) in discussing the frequency of the disease, states that at his clinic there were 109 cases among 31,502 patients.

In addition to the interest because of the rarity of such cases in insane hospitals, the clinical history and pathological findings in both cases are remarkable. In Case I there is a long history of convulsive seizures, and the autopsy revealed a lesion in the parietal lobe. In Case II there were spinal fluid findings of an organic disease; and here we found what was thought at first to be a syphilitic myelitis.

Accordingly, both cases are presented in some detail.

CASE I.—A male admitted to Danvers State Hospital July 26, 1910, age 30, of Scotch descent. Family record is negative for insanity, epilepsy and alcoholism. Education meager. Left school at 12 to become messenger boy. Came to the United States at 17 and worked as a harness maker. Married in 1899. Married life happy. No children, no miscarriages. A steady worker. Disposition good, quiet, fairly sociable. Never used alcohol. Moderate smoker. Venereal diseases improbable.

In 1906 a shock, called by the doctor a "nervous shock." Patient did not have aphasia and was not insane. No further description obtained.

In 1907 the left side of the face was paralyzed on rising one morning. Recovery in three or four weeks. About a month later, while at work, his right hand and foot began to shake and he could not use them afterward. He was "lame" and his hand was weak and clumsy. Was not unconscious. Did not work for six weeks.

* Contribution No. 64, Danvers State Hospital Papers.

In December, 1908, typhoid was suspected, but he recovered in a week. Doctor told the wife he had "head trouble."

In April, 1909, he had a convulsion. The next day he worked, although he complained of weakness in the right leg. Three months later there was another convulsion, following which he had one about every two months. "Shouts, stiffens out and right side works; left stiff and does not work."

For a few months his confusion following these attacks increased. He became forgetful and irritable. July 24 he had a severe attack. Following this he ran around half dressed; imagined people were after him to poison him; barricaded the door; hardly recognized his wife. His speech was indistinct; he had a blank, staring expression. Following this he was committed on July 26.

Physical Examination.—Height 5 feet 9¼ inches. Weight 124 pounds. Well built. Well nourished. Features unsymmetrical. Teeth poor. Tongue tremulous. Lungs negative. Apex beat not seen or felt. Heart slightly enlarged to left. A² accentuated. No murmurs. Arteries "somewhat sclerosed." Abdomen negative. Urine, slightest possible trace of albumen; no casts.

Neurological Examination.—Gait normal. Sways in Romberg's position. Marked tremor of extended fingers and tongue. Incoordination of movements. Sensations normal. Fundus examination negative. Pupils widely dilated; react well. Knee jerks exaggerated equally. All other reflexes normal.

Further examination two weeks later showed: Facial paralysis on the right side, very marked when he attempts to smile. Right leg is dragged; right arm not so strong as left.

On admission the patient was confused, restless and irritable. Within two weeks he gradually cleared up. He was dull, demented, with a period of amnesia covering the events leading to commitment and his early days in the hospital. His memory for events of the past four or five years was very poor. There was no speech defect. Marked writing defect. He was somewhat euphoric.

When the case was presented for diagnosis the staff expressed a variety of opinions. Brain tumor was preferred, but there was a question of syphilitic dementia or paresis.

October 4: First convulsions; 8 in 24 hours, with a day of confusion.

December 18: Condition good until this day, when he had a series of 27 convulsions in 24 hours. *The movements started in the left forearm, and then the whole side became involved.* The right side was less affected. His face was *pale* and he frothed at the mouth.

The next day there was a decided weakness of the right leg and a double ankle clonus.

March 11, 1911: No further convulsions. Has had mixed treatment and for a month inunctions, without improvement. Wassermann reaction on blood serum negative.

March 25: Had 84 convulsions, and for two or three days confused. April 1: Pupils unequal. Moves left side of face less than right. Sensa-

tions normal, *but he localizes less accurately on the right side.* Tremor more marked in right hand. Muscle strength and coordination slightly impaired in right leg. Right knee jerk and biceps reflex slightly greater on right. Double Babinski. Slight impairment of position sense, right leg. Right hand blue and colder than left.

April, 1911. Spinal fluid Wassermann negative. Protein not increased. Cells 2.5 per c. mm.

From May to March, 1912, he was at home. In January he entered the Massachusetts General Hospital where a diagnosis of multiple sclerosis was made because of the affection of both legs and one arm. There were "no signs indicative of brain tumor."

When he returned in March he was extremely confused.

April 5: Three convulsions. June 5: Three convulsions. July 11: Eight convulsions. There is no aura. There was slight nystagmus to the left of both eyes. First there is twitching of the lower limbs; the head was drawn to the right; eyes fixed to the right. Left leg is extended; right arm drawn up above the head; the right foot drawn in. The convulsion was clonic and tonic in character and followed by vomiting. Immediately afterward the right knee jerk was active; left barely obtained. Double ankle clonus; right stronger. Marked Babinski on right.

July 13: Twenty-nine convulsions.

The notes following these to the time of the patient's death, February 25, 1916, add very little. He remained euphoric. Became much demented, with a marked memory defect.

In 1914 the writer examined the patient as one of a group he was then working on (1, p. 326, Case II). At that time the knee jerks were exaggerated, right more than left. There was no clonus. Left side of face full. Left hand and arm weak and incoordinate. There was speech defect, attention defect and marked memory defect. The spinal fluid was negative to all tests (Wassermann, albumen, globulin, cell count and gold-sol).

At that time the case was left unclassified, although it was felt there might be a tumor of the right post-central gyrus region. This was based upon the apparent predominance of changes in the left side of the body.

The autopsy was performed one and one-half hours post mortem. The cause of death was tuberculosis. (There was a small tubercle in one adrenal.)

Head: Scalp adherent. Calvarium of increased density. Dura thickened. Pia thickened, distended with a considerable quantity of clear fluid. Basal vessels not sclerosed. Brain weight 1205 g. Pons and cerebellum, 160 g. Hemispheres weight 1110 g. First net weight 1170 g. Pons and cerebellum negative. Hemispheres show some atrophy. There is increase in consistence of the gyri. Both precentral gyri are very thin. In the left parietal lobe there is a depressed area in which the cortex is very hard. Section through this zone shows a great thinning of the white matter, thinning of the cortex, with change in color to a very light yellow. Dilation of left lateral ventricle.

After fixation for two months in formalin the more normal appearing gyri are firm and well fixed, while the gyri in the region of the lesion are shrunken in appearance, brown in color and much softer than the normal ones. No abnormalities in the vessels detected. Pia strips readily and cleanly. The lesion in the parietal lobe extends onto the posterior portion of the first temporal and onto the middle third of the post-central gyrus and involves the pre-cuneus (Figures 1, 2, 3). The corpus callosum is greatly thinned except at the rostrum and splenium. Between these two it measures 3 mm. at its thickest point. About the middle there is an area extending for about 6 mm. antero-posteriorly which is grayish in color, standing out sharply from the white of the corpus callosum. Left ventricle shows marked dilatation; right less marked. Spinal fluid withdrawn post mortem shows a very slight change in the middle tubes in the gold test and fluid taken from the left side of the cortex shows a slightly greater change; neither, however, of diagnostic import.

Microscopical Examination.—Sections from the frontal, precentral, post-central and temporal gyri and the cuneus of each lobe were examined. In none of these were there any vascular lesions, nor was there any evidence of a syphilitic or parietic process. There seemed to be an excess of glia cells in some areas, but with glia stains the picture seemed normal.

The lesion of the left parietal lobe is very vascular. There is an extremely marked gliosis (Figure 5). Replacing the cortex is a spongy network of fibers, with rather wide spaces, varying somewhat. There is a great excess of glia cells. A few nerve cells are found. In the white substance the neuroglia network is very dense.

The lesion seems to be of long standing and not active. No mitoses, and only a few young forms of neuroglia cells were found.

Preparations by the Weigert method show the following degenerations (Figure 4):

In the center of, and involving the gray matter of, the dentate nucleus, is an area of degeneration.

In the mid-brain there is an irregular network of degeneration.

Two sections of the pons show peculiar plaque formation along the posterior border, leaving a normal tongue-like area near the median line.

At the sensory decussation in the medulla there is a degeneration of the median portions of each pyramidal tract.

One section in the cervical region shows an area involving all of the lateral column, gray of the posterior and part of the anterior horn, and the median portion of both posterior columns.

Another section at the maximum point of the cervical swelling shows a degeneration in one pyramidal tract; very faint degeneration in Goll's tract; and in the median portion of each anterior column.

Two sections at different levels in the thoracic region show a very faint double lateral column sclerosis. A third shows a very faint posterior column and one lateral column sclerosis. A fourth shows a rather marked sclerosis of the entire posterior columns, and one antero-lateral column in the region of the origin of the nerve roots.

One lumbar section shows a pronounced sclerosis of lateral column and adjacent gray, while another shows a small area in one lateral column, the anterior horn and anterior column of one side being involved in another patch.

A section from the sacral cord shows an area in one lateral column.

There is gliosis in these sclerotic areas. No axone studies have been made.

Sections from the following areas seem normal: Cerebellar gyri and medulla at the middle of the olive.

From the description and the photographs it is clear that we are not dealing with uniform degenerations of any long fibers. Instead we have a patchy sclerosis, without alteration in shape or size of cord. Accordingly, the case is to be classed as one of multiple sclerosis. It is possible that one pyramidal tract is degenerated throughout, although it does not have a characteristic appearance.

The lesion in the parietal lobe (gliosis) is of considerable interest. It is not a tumor in the sense of a swelling nor is it a glioma in the sense of an invading, destructive growth. The lesion has the gross appearance of an area of atrophy. It represents, I believe, a part of the general picture.

Large lesions of the cortex in multiple sclerosis are very rare indeed. Hence the occurrence of a marked area of cortical gliosis in this case of multiple sclerosis is important.

The occurrence of an area of gliosis in the corpus callosum is also to be noted. The relationship of the parietal lobe lesion to the convulsions is somewhat obscure. Thus the convulsions are described as starting in the left arm. Accordingly the lesion would be expected in the right hemisphere.

The relation to the right-sided weakness and symptoms seems clear.

CASE II.—Female, single. Admitted January 11, 1915, age 20. No insanity or nervous diseases among immediate or collateral relatives. Father, age 46. English. Motorman. Is said by the mother to be excessively alcoholic, cruel, immoral and to have had a venereal disease, nature unknown. She accuses him of non-support, she having worked for a number of years to help support the family.

The mother, age 40, a hotel keeper. Is said by the husband to be immoral, alcoholic for the past seven or eight years. Quick tempered. She had worked in various places as a waitress and at present keeps a rather low-class hotel. There have been five pregnancies: the first was the patient; second a girl of 17, is in good health, said to be moral; the third resulted in a miscarriage at eight months; the fourth at three months; and the fifth in a miscarriage at four months. Mother had some trouble at the birth of each child, especially sick at the birth of the patient.

As a child the patient's health was good. She had measles, mumps, whooping-cough and chicken-pox. She graduated from grammar school at the age of 14. Attended high school for two years, would not study but was apparently bright. She then obtained a position as telephone operator, worked until the first of June, 1914, when she left because of her present

trouble. Got along all right in her work and was a favorite with the girls. Menstruation began at 13, never any trouble. In 1913 she gave birth to a child. The mother thinks that this trouble was forced upon her. The child is living, healthy. It was thought that the patient was pregnant in 1914 and she was taking gin and turpentine and had terminated the pregnancy in some way. The patient had a tendency to fly into passions. She would sometimes take a drink of beer. In the latter part of 1913 she had difficulty in walking. Her left foot began to drag. She slowly lost control of the muscles of that limb. This condition advanced. She would fall several times in walking a short distance. In June, 1914, had to give up work. During the summer she lost control of her arms, they became numb; she felt tingling sensations in them. After two months she recovered the use of her arms. At this time her eyesight became affected and she was almost blind for two months, being able to see only the window. At this time she accused people of taking things from her. It is possible that the father did take some things. In July, 1914, she was examined at the Massachusetts General Hospital; there was no defined mental disturbance. Pupils were unequal. There was considerable ataxia of the arms, active knee jerks and double Babinski sign. Walking was impossible. Wassermann on blood and spinal fluid was negative; 20 cells; increase in globulin and albumen. Gold-sol was positive for syphilis. The diagnosis was between ataxic paraplegia and multiple sclerosis. She was committed here upon the advice of the physician.

In this hospital consciousness was very clear. She was perfectly oriented, no delusions or hallucinations. Pleasant and cheerful. Admitted sexual indiscretions, talked freely and without emotion about her past life. Cooperated well and appreciated her treatment.

Physical Examination.—Well developed, well nourished. Palate high. Heart and lungs negative. Extremely constipated. Wassermann on blood and spinal fluid negative. Albumen and globulin excess, 27 cells. Gold-sol 3255431000.

Neurological Examination.—Complained of headache unless head is well supported. Poor discrimination in taste. Salt was sweet. Sour called sweet. Sweet either sweet or sour. Smell unimpaired. Right pupil larger than left. Both pupils reacted promptly to light and accommodation. Well-marked lateral nystagmus. Slight internal strabismus of the right eye. Complained of seeing double. Over the external surface of left leg there was lack of discrimination between the head and point of pin; hyperesthetic over the legs. Retardation in recognizing heat. On the internal aspect of the left upper leg there was a loss of discrimination between heat and cold; also a loss of discrimination between heat and cold over the right foot. Poor discrimination of pain, also of heat and cold in the abdominal area. No impairment in discrimination of touch, pain, and temperature over head, face and neck. Localized well for touch. Marked tenderness over the nerve trunks of the legs, not so over the arms. Stereognostic sense impaired. Elbow and wrist jerks normal. Knee jerks extremely exaggerated. Double Babinski. Questionable left ankle clonus. Possibly some impairment of

organic reflexes. Loss of abdominal reflex. Marked weakness of the hands, right more than left. Marked incoordination of movements. Finger to finger, and finger to nose tests extremely poor. Both legs flaccid. The legs showed considerable wasting. Absolute loss of voluntary movement in right leg, excepting a slight abducting power. No convulsions. Slept well. Denied being pregnant more than once.

In March she complained of intense pain in the groin, in knees and right shoulder. Could not feed herself. There was twitching and jumping of muscles. On some days she was worse than on others. Complained of varying degrees of paralysis. At times one group of muscles would seem paralyzed and at another time she would have fairly good control over them. There was scanning speech. In May she developed several large areas of decubitus. Vomited a great deal. She gradually failed, began to run an irregular temperature of 102° to 103°. Developed large areas of infection in the muscles of the right leg. Died August 22, 1915.

Diagnosis.—She was presented at staff meeting February 4. Two left the case unclassified; two preferred lateral sclerosis; two unclassified, lateral sclerosis or hysteria with lateral sclerosis; one probable syphilitic myelitis.

Between March and July this patient was given vigorous anti-syphilitic treatment to which she did not respond in the least and it was, therefore, discontinued.

The autopsy was performed 16½ hours post mortem by Dr. E. B. Allen. There was a large area of sacral decubitus, another large area over the anterior surface of the left tibia and another over the left trochanter baring the hip joint. There were contractures of the legs at hips and knees. The knees and body tilted, giving rise to a slight spinal curvature. There was a chronic appendix, slight atheroma of the coronaries, an acute splenic tumor, congestion of the liver and kidneys, slight edema of the posterior border of the lungs, congestion with hemorrhagic areas in the stomach and intestines, ulcerative colitis.

Head: Calvarium was thickened, unequally, more on the right side. There was no sclerosis of vessels. Slight thickening of pia. Brain weight 1225 g. Net weight 1200 g. The pia of the cord was congested and cord was slightly soft.

Brain and cord were preserved in formalin, and on examination some months later brain did not show any special abnormalities. Pia seemed thin and clear. Sections showed a few small, bluish plaques. The cord was somewhat distorted. In the upper thoracic region there was an area where it seemed that the cord substance had disappeared leaving only the meninges; this may possibly have been due to trauma in removal.

Examination of sections of cortex, pons, medulla and cord show a generalized meningitis of the type described under Gasserian Ganglion. However, in no area can any perivascular exudation or lesions of a similar nature be demonstrated in the nervous system. They are all on the surface.

In the Gasserian ganglion the nerve cells are finely granular, often showing an excess of pigment. In some the nucleus area is represented by a mass of yellow, granular pigment. In many places there seems to be an

overgrowth of capsular cells. The meninges show a considerable infiltration with mononuclear cells. There is no perivascular infiltration of the type so characteristic in paresis.

Weigert preparations were made from 11 areas of the cord, three of the medulla, two of the pons, the basal ganglia, several gyri and cerebellar folia. Selected ones are shown in Figures 6 and 7. There are large spots of degeneration in pons and medulla. In the cervical region there are areas where the entire cord is sclerosed and the gray matter cannot be made out.

In the thoracic region some sections show more than half the cord degenerated. In some lumbar sections the median three-fifths is degenerated from the dorsal to ventral margin. The sections from the cerebral cortex and cerebellum show small spots of degeneration in the white matter in varying positions.

A parallel series stained by the Marchi method shows no acute degenerations.

Another series stained for neuroglia shows an extremely marked gliosis, with the formation of fairly large spaces, in all cord sections. This involves both gray and white matter. The nerve cells are in most areas intact. In a few areas there appears to be a considerable diminution in number.

In this case, therefore, we have a slight leptomeningitis, with a mononuclear cell exudate, and an extremely marked patchy sclerosis; in some areas involving the entire cross-section of the cord. The distortion of the cord led us to believe that we had to do with a syphilitic myelitis (bearing in mind the findings in the spinal fluid), and it was not until the character of the degenerations was demonstrated that the true nature of the disorder became apparent. However, with all the evidence at hand there can be no doubt that the case was one of multiple sclerosis.

A question at once arises concerning the relationship between the altered spinal fluid, the meningitis and the multiple sclerosis. To be sure, the spinal fluid findings are not absolutely indicative of syphilis. The negative Wassermann reactions in both blood and fluid are, in fact, against a diagnosis of syphilis. However, as I have pointed out elsewhere, rare cases of genuine paresis have negative Wassermann tests in both blood and fluid, the other tests being positive. In this case there were, of course, no indications of paresis, but a simple meningitis.

If the meningitis and multiple sclerosis were due to syphilis, then we might have expected some improvement under anti-syphilitic treatment, which did not occur.

It is possible that some other infection than syphilis gave rise to the condition. However, the meningitis is very like a syphilitic one (Figure 9). It is also possible that the multiple sclerosis and neurosyphilis are coincident.

In any case, whatever the real etiological factor may have been, we have here a case in which the spinal fluid findings indicate neurosyphilis, presenting at autopsy a mild meningitis and a pronounced multiple sclerosis.

Inflammation of the meninges in multiple sclerosis is not described in any report on the condition which I have seen.

SUMMARY.

1. A man whose trouble began with a "shock" at 26, who had numerous convulsions through a period of years and whose neurological symptoms varied from time to time, showed at autopsy an area of gliosis in the left parietal lobe, together with patchy gliosis in the cord. His condition had been diagnosed syphilitic dementia, brain tumor, multiple sclerosis and epilepsy.

2. A girl of 19, previously immoral, was found to have spinal fluid changes such as are found in neurosyphilis (except that the Wassermann test was negative), together with marked and varying neurological symptoms. The autopsy showed a meningitis of mild grade, together with an extremely pronounced multiple sclerosis.

3. The relationship between the neurosyphilis (?) and the sclerosis is obscure.

4. They may stand in the relation of cause and effect, or they may be coincident, or both meningitis and sclerosis may be due to some other cause.

5. Two unusual combinations of lesions are presented:

A. Large focal lesion of cortical gray matter in multiple sclerosis.

B. Combination of meningitis and multiple sclerosis.

REFERENCES CITED.

- Lowrey, Lawson G.: (1) A study of some Case Diagnosed as Paresis in Pre-Wassermann Days. *Journal Nervous and Mental Diseases*, XLIII, 1916, p. 324. (2) Some Observations on the Relationship between Syphilis of the Nervous System and the Psychoses. *American Journal of Insanity*, LXXIV, 1917, p. 25.
- Starr, M. Allen: *Nervous Diseases, Organic and Functional*. Philadelphia, 1913.

EXPLANATIONS FOR PLATES.

CASE I.

FIGS. 1, 2, AND 3.—Photographs of left hemisphere to show area of lesion in left parietal lobe. Also note in Figure 3 the thinning of the corpus callosum and the gray area about its middle.

FIG. 4.—Photographs of Weigert stained sections to show the areas of sclerosis.

FIG. 5.—Photograph of the lesion in the parietal lobe. From the cortical area. Phosphotungstic acid hæmatoxylin stain. Zeiss apochromat. 4 mm. lens: compens. oc. 8. Bellows length 50 cm.

CASE II.

FIGS. 6 AND 7.—Photographs of Weigert stained sections to show the areas of sclerosis.

FIG. 8.—To show sclerosis in the cord. Magnification as in 5. Phosphotungstic hæmatoxylin.

FIG. 9.—Area of meningitis. Magnification as in Fig. 5.



FIG. 1.

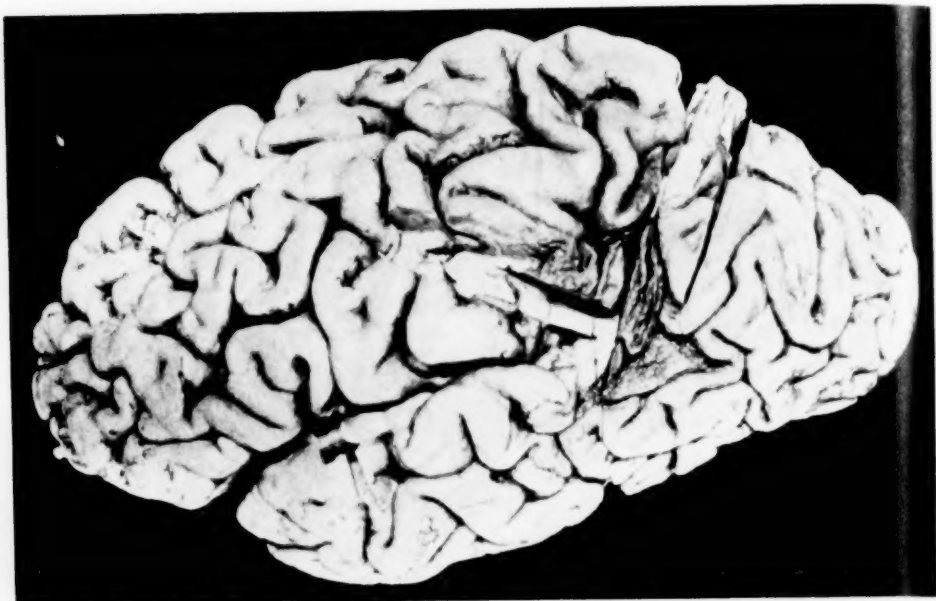


FIG. 2.



FIG. 3.

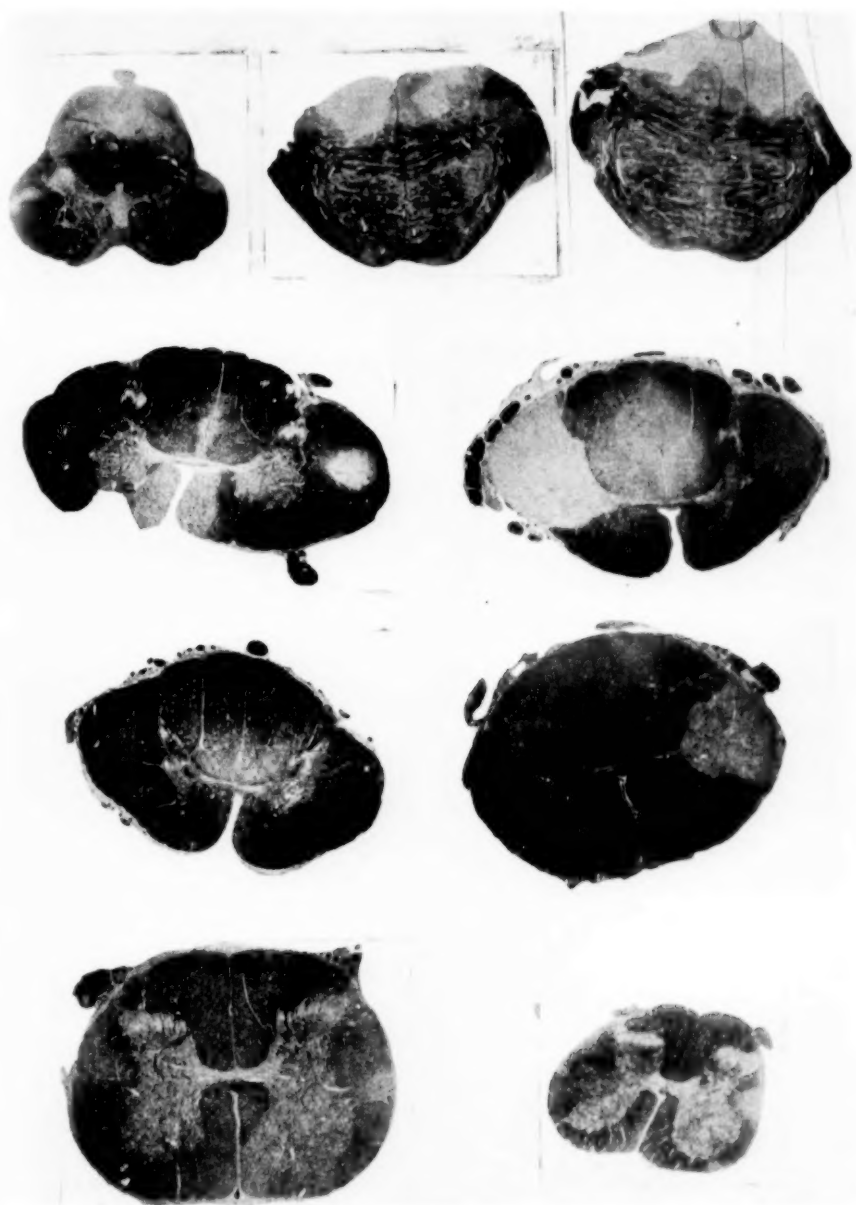


FIG. 4.

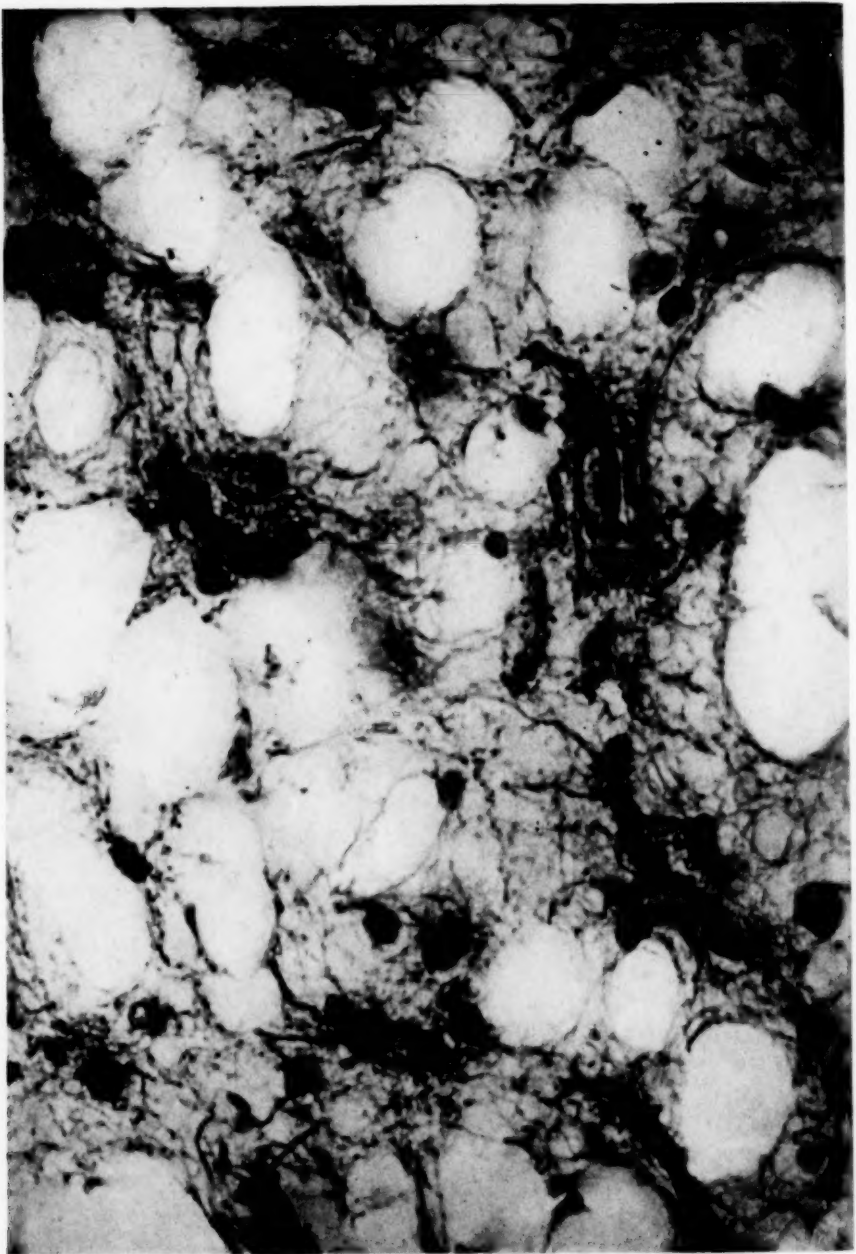


FIG. 5.



FIG. 6.

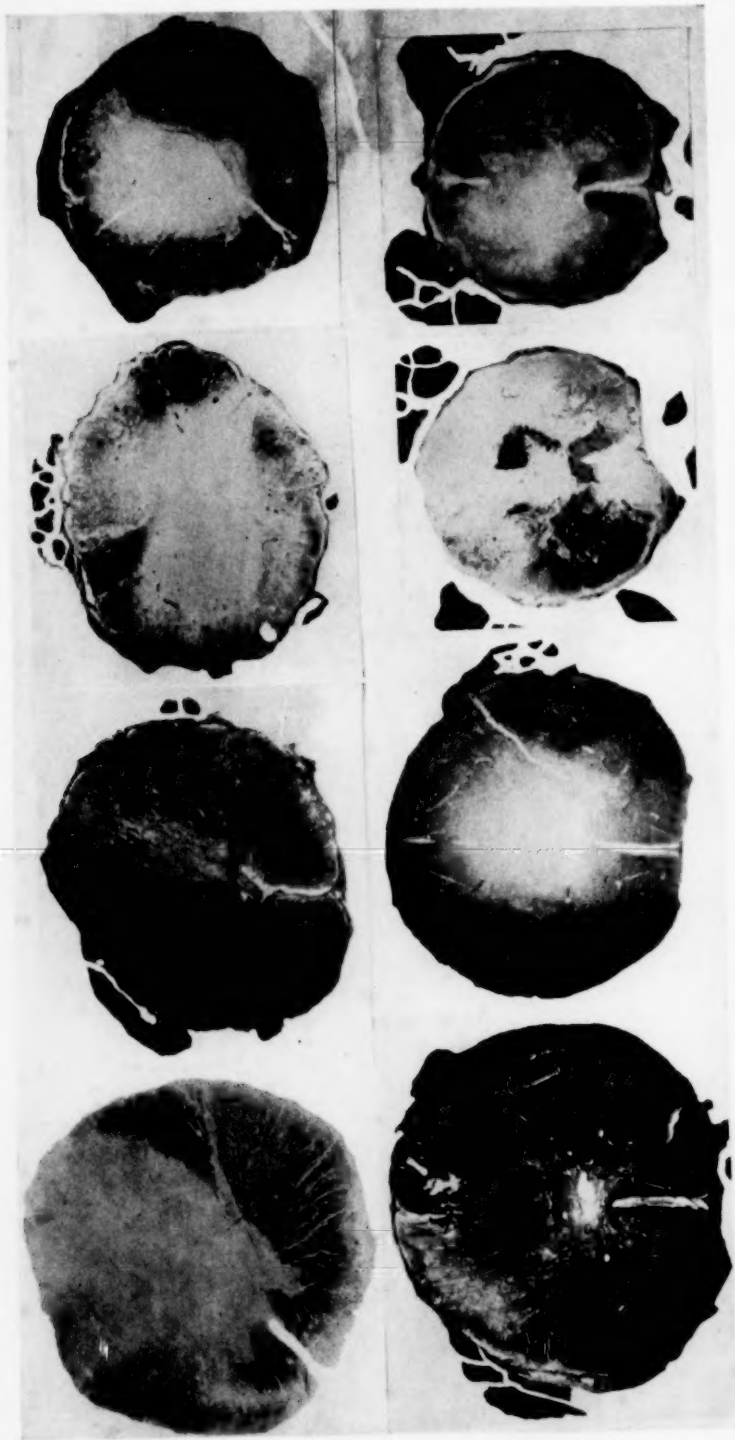


FIG. 7.

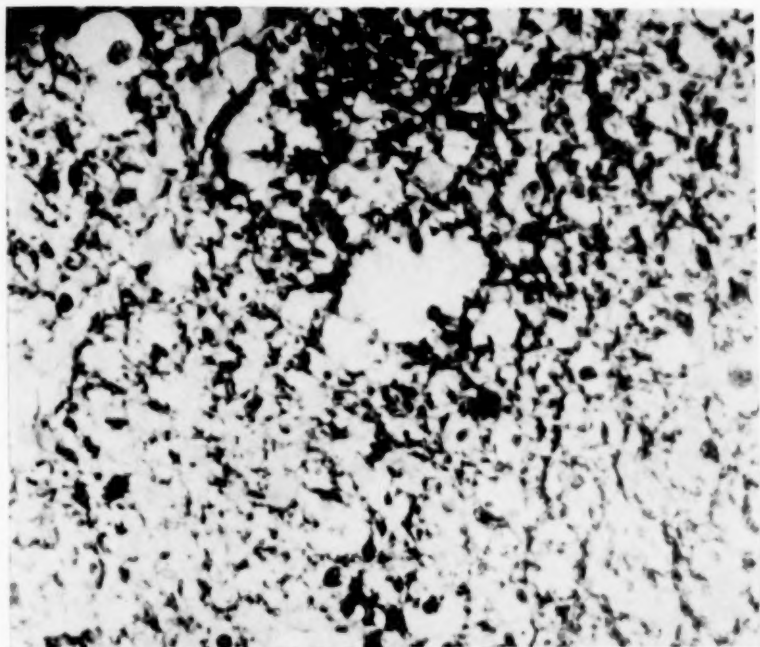


FIG. 8.

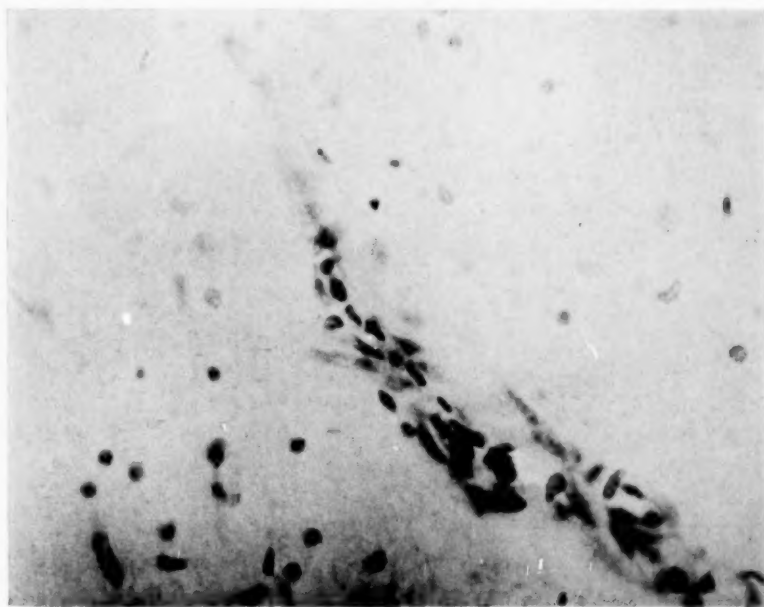


FIG. 9.

THE PROBLEM OF THE INDIVIDUAL PATIENT IN LARGE HOSPITALS.*

By WILLIAM A. WHITE.

I think that the statement that therapy is successful in proportion to the ability to individualize the problems will go unchallenged. It has been true in all departments of medicine and probably all of us have been taught in our student days, and the students of the present generation are being taught over again, to treat the patient and not the disease. Each generation of students, however, receive this instruction at a little higher level, so that while its general principle is the same, still they find themselves closer to the individual problem.

In the large hospitals for the mentally ill the problem of individualizing the patient has always been a difficult one. It is unnecessary to trace its history further than to call attention to the fact that for the most part in the past therapeutic endeavor has been addressed to large groups of patients rather than to individuals. It is only when these various group methods of therapy have worked themselves out to the logical limits of their applicability that more intensive study of individual cases is possible, and even under the most favorable circumstances this is still largely out of the question in the state hospitals, and it has been one of the reasons why the psychopathic hospitals have been favored, because of the few number of patients and the large number of nurses and physicians which make it possible to give this sort of attention to the individual case during a period when something may be expected from treatment.

It seems to me to be a necessary corollary to these facts that individual treatment will require a psychotherapeutic approach. The trouble with the patients in our institutions is a mental trouble, and I can see no way of dealing with these cases individually which does not take into consideration the psyche. Of course you will understand that this does not mean the overlooking of necessary physical remedial agents; it merely means that no adequate under-

* Read at the seventy-third annual meeting of the American Medico-Psychological Association, New York, May 29-June 1, 1917.

standing of the individual problem can be had in the field of mental medicine which does not include an approach to the problem at the psychological level.

At Saint Elizabeth's Hospital we have at the present time two psychotherapists who devote themselves continuously to this branch of work, and in addition study the cases in connection with other members of the staff. This scheme works very well for the recently admitted patients, but there are a considerable number of patients throughout the hospital who would undoubtedly be helped by psychophtherapy but yet are, for various practical reasons, not available for this form of treatment under ordinary conditions. They are the shut-in types that preferably stay by themselves and do not associate with others, attract but very little attention and make oftentimes very little trouble, but perhaps are fairly industrious and well behaved patients. These patients, and in fact a large proportion of the hospital population, have little or no idea of what psychotherapy has to offer, and therefore make no effort to avail themselves of this form of treatment. They are very easily overlooked, especially by the physicians whose time is already crowded with acute problems.

To deal with these various aspects of the case I thought that an intramural publication might perhaps be of value, and so in the month of March of this year we brought out the first number of *The Sun Dial*, the first two copies of which all of you have received. The object of this publication is somewhat different from the object of similar publications which have been brought out from time to time in other institutions. It has primarily a therapeutic object, and while it is intended to serve all of the purposes that these other publications serve it is the intention also to do something in addition. In the first place we wanted to let the patients know something about what was going on in the different departments of the hospital. We wanted to let them know how they might avail themselves of the different agencies which have been created to help them, and, in particular, we wanted to let them know that they might have an individual discussion of their own specific problems if they so desired. To this end we have printed notices that the psychotherapists would meet any patient at such and such a time and such and such a place to discuss individual problems, and we have thus tried to get patients who felt that they

needed help to come forward, to take the initiative in asking for it. This, probably, will bring out a few patients who can be helped. In addition to this, we have in our department headed "Talks to Patients" endeavored to give simple discussions of the various mechanisms which make for bad psychological adaptations and to put it all in simple language so that the patients can understand, trusting that many of them may make the application to themselves and see how they were the subjects of such distorted ways of adjustment. In this way it is to be our endeavor to build up a literature which will appeal to the patient class. Such a literature does not now exist, and we will have to feel our way and learn from experience, but it is my belief that a great many things can be said in this way that will be of value to the patients, perhaps not to very many of them but to a few, and that a publication of this sort, if it helps only a few, in the course of a year, to find a method by which they can get back into the world, will have served its purpose. I shall be more than glad for any comments or any criticisms, either at this time or in the future.

THE PREVENTION OF INSANITY AND DEGENERACY.*

By CHARLES W. BURR, M. D.,

Professor of Mental Diseases, University of Pennsylvania, Philadelphia, Pa.

One of the signs of the times, whether for good or for evil, is that the control of many medical matters is passing out of the hands of physicians into those of laymen, or bodies largely made up of laymen. How much this is the result of a much-to-be-deplored indifference on the part of medical men as a class, and to what degree it is a symptom of the very rapidly spreading belief that untrained people are better judges and masters in technical matters than men who have had special training, need not be discussed. It is one of the instances of governmental interference in matters which in earlier times were regarded as under personal control and not an affair of the state. It is one of the results of the wild fury of altruism which has overwhelmed the country, and has produced much unwise legislation, brought about by the public being misled by incompetent newspaper physicians, whilst those most competent to speak hold themselves silent and aloof. It is partly the fault of physicians themselves. The often referred to citizen of Mars, if he were to visit a medical convention to-day, would be astonished to find so little time devoted to such a vital and practical question as how to preserve and improve national health by the prevention of mental disease, while so much time is devoted to the Freudian interpretation of dreams, the relation of the solar myths to the causation of insanity, the cure of hysteria by mental catharsis, and mystical explanations of mental processes. He would be told the authors of papers on these subjects have "vision" and imagination which sees into the heart of things. He might not believe what he was told. Speaking seriously, I do not think that we, the members of this Association, barring our Committee on National Mental Hygiene, have done all that is possible to inform the public what a menace insanity, and degeneracy in general, is to the national health, and to instruct the citizens what

* Read at the seventy-third annual meeting of the American Medico-Psychological Association, New York, May 29-30-31-June 1, 1917.

can and ought to be done to prevent an increase in, and in some degree diminish, the rate of degeneracy. It is the more important for us to take our part in this movement since we can by our knowledge show what things are possible to be done, what things are of value to be done, what things to avoid doing. Also we ought to act as a break on the ill-informed, but enthusiastic who believe that much more can be done than nature will permit, and who in trying to bring perfection accomplish nothing.

I purpose to discuss not only the prevention of insanity in the narrow technical sense of the word, but all types of mental degeneration, because they all, feeble-mindedness, epilepsy, pathological alcoholism, criminalism, hysteria, etc., are more or less closely related and are all of vital importance, and because the same or almost the same means of prevention are valuable in all.

The ideal way to cure an evil is to find out the cause and then remove it. Of the two kinds of causes, predisposing and exciting, the former is the fundamental causative factor. There are many exciting causes of degeneration, several of any one type of degeneration. Moreover, occasions are often mistaken for causes, and in mental disease, symptoms are frequently confused not only with exciting but also with predisposing causes.

I assume that many of us will agree that the cause, the real predisposing cause, of all degeneracy, is a defect in the protoplasm of the victim and that that defect has many exciting causes. I further assume that not a very small number will agree with me that the defect is a result of heredity. This being granted, time is too short to prove it, it becomes our task to see what can be done to lessen the number of marriages (in our innocence we will assume that only the married have children) of people who may, because of their own defects, defects not patent enough to be recognized by people in general, produce defective offspring, and what can be done to prevent the defective offspring themselves from procreating.

To remedy the first of these evils is impossible. We must accept it as a fact, and as irremediable, that the great river of degeneracy is largely fed by springs which, though seemingly pure, are in reality polluted. Cures have been attempted. Certain of the states have passed laws the purpose of which is to prevent marriages of the unhealthy, but they belong to the class which we Americans so

love to pass, laws impracticable and impossible to enforce. In one state, *e. g.*, the man himself states whether he is an imbecile, and if he says he is not, the clerk of the court cannot go back of the statement. Another requires examinations to be made and tests to be submitted to which, properly done, would cost the applicant for matrimony large sums. Law cannot take cognizance of several of the affections in parents which lead to degeneracy in the children, *viz.*, mattoidism, paranoidism, and eccentricity. The woman who thinks she is a man and the men and women who are antis to science, to healthy religion, and to sane politics are pathological but uncontrollable. One of the worst parents a child can have is one of those sometimes superficially brilliant, always egotistic, eccentrics who are idiosyncratic in morals, manners, and opinions, who never are suspected to be mentally diseased, save by a small number of cranky alienists. Such people are prone to have a strong but perverted moral sense, the dictates of which they follow regardless of consequences thinking they are martyrs for conscience sake. They believe they are logical and are so childish as to imagine that logic is important in life. You all know the type I mean. You see them every day and you know what kind of children they bring forth and how they reinforce the evils of heredity, with which they have burdened their children, by the most vicious kind of home education. Another dangerous type is the somewhat feeble-minded but not wholly imbecilic. Though we can do nothing with these people we can do something with the frankly insane, the epileptic, the imbecile and the pathologically criminal.

First, as to the insane. So far as procreation goes I am not sure they do as much harm as the people alluded to above, because many of them are impotent, many are held in institutions, and many in the intervals between attacks realize fully their duty not to bring forth and act accordingly. Many epileptics and mentally ill people lead heroic lives save when acutely ill. Happily also, laymen are more and more realizing that the insane need treatment in institutions and need to be restrained of their freedom. But unfortunately, even to-day, the diagnosis is often not made until the patient has been ill for some time, has lived without a moral sense for months, and this not infrequently leads to opportunity for impregnation, an opportunity too often embraced. Every year I see as patients young men, more infrequently young women,

within a few weeks after marriage. They have not, as misogynists declare, been driven insane by the horrors of matrimony, but were insane when they married and their offspring suffer. The only way in any degree to prevent this is by indirect means, by bringing to life again, the dead or dying family physician, who in the old days not only treated the ill but knew the family, was their friend and adviser and was a shrewd observer and noticed when John was getting a little queer, or Mary Ann was too moody and fanciful. I have not idealized him, he really was. The communal district doctor, toward whom we are seemingly drifting, will not fill his place nor do his work. He will be a bureaucrat and just as useful as bureaucrats always are, but the people are determined to be regulated by government even if they die for it. The founders of the republic were, it seems, dreamers who believed government is a necessary evil and the less we have of it the better; thought that men have some power of self-control. Some present dwellers in the land, especially those hailing from much-governed countries, think government is such a good thing we cannot have too much of it, unless, because of the breaking of their chains, they run to sheer anarchy. Others, inarticulate poets, dream away their lives in the fairyland of socialism, or eat their hearts out in a self-created nightmare of suspicion of the thrifty.

The problem of the insane whose disease is recognized, is difficult enough. While they are confined in hospitals there is no danger, but insanity has a bad habit of remitting (it would be much better if it did not), and during these remissions there is grave danger of procreation. A very simple, but wholly impracticable, method to improve the race would be to confine a person for life in a hospital, once he is sent there, but it could not be done and if, with our passion for making and then not enforcing laws, any state enacted such a statute, its citizens would hide patients from the doctors. The difficulty of the problem is shown by the following example. A married woman suffering from manic-depressive insanity is insane two years out of every five. The other three years she is, so far as symptoms go, a mentally normal woman and may be a very useful and intelligent person, but she should never breed children. How can it be prevented? Much as I am opposed to asexualization in general, because of its impracticability, I believe that under circumstances such as given above, it is not

only justifiable to make the woman sterile, but that not to do so is unjustifiable. What to do with the adolescents during the interval that often occurs between the first attack of adolescent insanity and the inevitable second, I confess I do not know. They cannot be confined. No law prohibiting persons who have ever been insane from marrying can be enforced, because they themselves will not admit their previous illness, often they do not realize its seriousness, and for the state to investigate the whole past life of applicants for a marriage license is impossible. Further many impregnations occur among the unmarried, the rate being higher seemingly in country districts and small towns where professional prostitution does not flourish.

Imbeciles add tremendously, by procreation, to the army of the degenerate. Apart from other reasons against it, I do not think asexualization can be carried out on a large enough scale to have any appreciable effect. To asexualize imbecile girls and then allow them to go free leads to another evil, *viz.*, the increase of sexual disease. Very soon the vicious youths and men of the neighborhood will learn that such a girl is asexualized, and from their point of view safe, their only fear being a possible charge against them of bastardy, and she will soon be infected and thus be a permanent focus of disease. The only solution of the imbecile problem is for the state to undertake the care of all imbeciles in any way dangerous to the state and keep them in institutions, preferably farms, for life. Such farms could be almost self-supporting. Expensive as this would be at first, the ultimate cost would be less than the present method, or rather lack of method, entails because the population of almshouses, prisons and workhouses would be decreased and less money would need to be spent on the detection and punishment of crime.

The problem of the moron, *i. e.*, the highest-grade imbecile, is very difficult because so often his intelligence, his intellectual power, is so high, that, save to the technically trained, his imbecility, *i. e.*, his lack of moral sense, is hidden. He is the more dangerous because he is the connecting link between the insane man who commits a crime and the sane criminal. (I am still old-fashioned enough to think that a sane man may be a criminal.) The moron is always criminal by instinct and commits not only crimes of violence, the only ones his more imbecile brother is capable of com-

mitting, but also crimes requiring cunning and planning. Whether such a policy can be carried out I know not, but permanent institutional care is the only means by which he can be prevented from injuring the state and the race. He is harder to manage than the low-grade imbecile, who often, because his sexual reflexes have never developed, is rather good-natured and sometimes innocent in conduct. A jail, which really is a workhouse, is the proper place for the moron. But the difficulty would be in making the diagnosis. Suppose a reactionary like myself, who believes in jails and hanging and such brutal things, should be on a commission with an "uplifter," who thinks that everyone may be reformed, how could we come to any agreement either as to diagnosis or treatment? To-day "uplifters" are very often on commissions of all kinds and not rarely in controlling numbers.

The imbecile of middle and high grade is very prone to join the criminal class, and the crime question is closely connected with degeneracy. Though I am not philosophical and logical and up-to-date enough to accept the most recent, and hence necessarily true, dogma that all crime is caused by mental disease, when it is not a defence reaction of a very good and heroic person against the sins of society, I know by personal clinical study that a not small percentage of criminals are mentally diseased or mentally defective, and that many others are so vicious that their offspring will very likely suffer from some form of degeneracy. All such should be kept under confinement for life. But the difficulty is to define the word criminal and to make the diagnosis. A rough, working, not a scientific definition is, a person who habitually lives by breaking the law. Such simplicity will not satisfy the members of the newer schools of sociology and psychology, but we are not considering psychological justice to the criminal but what his influence is on the welfare of the race. We all know that every person serving time in jail is not in essence a criminal even though the charge may be as serious as homicide. It is entirely possible for a man who is really a person of law-abiding instincts (I assume that such instincts are admirable though there seems to be an increasing number of "intellectuals" who think it is only admirable to obey the law when it agrees with your ideas) to be so beside himself with rage as to kill. It is possible for a youth of inherently good stuff to be so tempted as to steal or

embezzle. Indeed many crimes are done by people who are not criminals. The following case illustrates that an alleged criminal by accident may be the real thing. I was called to examine a young man, because the attempt to prove his crime (theft) was an innocent boy's lark had failed, in the hope I would give the opinion that he was an imbecile. The father, a physician said, in apparent astonishment, he could not understand how a boy of such a good family could have done such a thing. I knew, but he (the father) did not know I knew, that within a month he had told a patient a consultant's fee would be \$300, had been given the money to pay the bill, had arranged with the consultant to do an operation for one hundred, had paid him that amount and himself pocketed the difference. This man was of good repute but bad character, a very tricky person, and his son was his biologically to-be-expected offspring. The young man has continued in the course the father continued till death. There are some criminals who never get before a court because their crimes, the things against society which they do, are not crimes but sins. Most unfortunately sins, I mean of course biological not theological sins, always are serious in import, serious in result, no matter how trivial they appear, while crimes may be trifling, or may be entirely artificial like many of those recently invented by Congress and the assemblies of many of the states. For example, it is a crime in Kansas to circulate a newspaper carrying advertisements of cigarettes.

We need some way to make a differential diagnosis between the accidental and the habitual criminal. The psychiatrist can, given time enough, make the diagnosis, but there are not enough psychiatrists to do the work and altogether too many pseudo-psychiatrists who are aching to get the job: some out of altruistic enthusiasm, some because they need money, some because of the notoriety gained by being in public movements. One of the difficulties in all reform movements is to keep out the parasites who see a way to an easy living by pretending to be interested. A pseudo-psychiatrist is one who does not agree with me. There is one type of criminal, however, we all will agree should be confined for life. He starts either as a dull, stupid boy, or precocious, but having no sense of discipline. As a youth he runs wild, commits petty thefts, is cruel toward weaker and younger boys, precocious in sexual knowledge and acts, a liar and without respect for anyone, lazy

and indolent, doing only casual work, never learning a trade or working at any one thing for any time. He is not the victim of society, he does not usually have a stepmother or a drunken father, he has not often been taken from school too soon. He is protoplasmatically wrong. He is sent to jail and to the house of correction repeatedly. He never commits any crime requiring deep planning. There is another type plausible in manner, often pleasant in bearing, careful of his language save when among his own kind, but a liar, a thief and worse. You see him by the dozen every time the court of Quarter Sessions meets—flashy in dress, dirty in person or much more rarely having an effeminate nicety, plausible in speech trying to hoodwink the judge, shifty in manner, either brutal in face or with a weak girlish, childish prettiness which makes young women amateur social workers, he does not deceive the trained workers, think he must be good and unfortunate, an impression he tries to make stronger by his tale. He also serves many terms in jails. Now these and all habitual criminals are incorrigible. They never will be of any voluntary good to the commonwealth and should be made to work for life. They will only do it by compulsion. The tendency to-day, however, is the opposite of this. The most up-to-date penologists teach that everyone can be saved. One of the means of salvation is the parole system. There are many inmates of prisons who deserve parole but many get a parole, and no law can be made to exclude them, who ought not to be let out. They are given and take opportunity of their parole to procreate their kind. Probably few of the advocates of parole have ever thought of this aspect of the matter. We are strong on eugenics in this country so far as writing about it is concerned, but we are weak when it comes to action. We will neither let nature take its own course, which might be the wiser thing, nor ourselves take the severe course which would cure, or at any rate palliate, some ills. Our soft sentimentalism for the convict makes us forget what evil he may bring to future generations.

One of the objections to the abolition of capital punishment is, murderers if not executed, and execution, even imprisonment, is to say the least rather rare, are often pardoned after a longer or shorter term and procreate their kind. Within the last three months, a murderer released from a Pennsylvania jail two years

ago, after serving 10 years for the murder of his father, committed a murderous assault on a woman who refused his advances. When one remembers that we have 10,000 homicides a year in this country, we realize the importance of the matter. Under our present laws, murderers acquitted on the ground of insanity are often set free after a longer or shorter stay in a hospital (sometimes they go from the prisoner's dock to freedom) and they too may procreate their kind. It would be better if a person absolved from responsibility on account of insanity should be confined for life in a hospital for the criminal insane. In the wicked days of Victorian England and earlier this was done, but since the British have, in these reforming days, created courts of criminal appeal, they probably will soon admit "brain storms" as a defence and then be as bad off as we are.

I intend to make some adverse criticism of certain things done with popular approval (really they are done without the people paying any attention, for citizens of America as a class fail in political duty, and any small group of people can have passed any law claiming to improve morals, because no politician is brave enough to fight against any movement pretending to be holy) and intended to help both the individual and the race, and since anyone who takes the unpopular side in public movements alleged to be for the betterment of the people, is always supposed, at least alleged, not always in good faith, to be influenced by improper impulses, I wish to state that I am not an employer of labor, nor in any way interested in anyone who is. I am not subsidized by any commercial person or body, neither brewers, distillers or others. If by any chance the reactionary is admitted to be honest then he is accused of narrow-mindedness and ignorance. As to the first I claim I am so exceedingly broadminded that I think and believe the power back of nature has more wisdom than we and knows exactly what it is about in running the universe; as to the second charge I have a very firm opinion which modesty forbids my recording.

First, we have gone mad on education. We assume that the entire juvenile population has mind enough to receive scholastic training and that book learning will decrease crime. Both these assumptions are false. Learning never made a bad man good. Greatness of intellect is less important to a man's mental health

than good morals. Happiness is less dependent on intellect than on well-controlled (reflexly controlled) healthy emotions. The mass of men have very little pure intellect, power of reasoning, and their intellectual development ceases early in adolescence. They are none the worse men because they are not highly endowed intellectually, nor are they less happy, because there is a good bit of humbug, especially among the "highbrows," about the pleasures of the intellect. Few enjoy the so-called pleasures of the mind. Many mistake the pleasure of feeling they are superior for the pleasure of mental work. It must be very nice to believe you have more mind than other people. We are compelling boys, dwellers in a mental world of two dimensions whom nature has not fitted to be scholars and whom she intended to be manual workers, to go to school till they are 16 years old. We are trying to get them to be dwellers in a mental world of three or even four dimensions. They do not do well at school. They drag along. If they are manly boys, they bear their fate as best they may and go to work as soon as the law allows. If they are of the soft type, the easily moldable, the easily influenced, they grow lazy and indolent and by the time the law allows them to work, the habit of idleness has become so fixed that they will not work and pretty soon join the ranks of the corner loungers. This evil is not so great in the country where the farmer, as yet, is allowed to have his son do odd jobs on the farm, as it is in the cities where there is no such work. Of course, children, should not be allowed to do real work and boys should be taught to read, write and cipher, and, when it can be done, to think, but no boy should be kept at school after 14 years unless he shows mental ability. If he has mental ability he should be given educational opportunity in proportion. Careers should be open to talents even if that very bad man, Napoleon, said it. The one thing boys are not taught in the public schools is to think, and the unconscious effeminizing influence of women teachers on boys over 10 years of age is an evil notwithstanding all the claims made by the believers in the emancipation of women. One of the claims of the proponents of our child labor laws is that boys cannot grow properly if they work before they are 16 years old. The battlefields of Europe to-day prove that men may be not only physically strong, but emotionally well balanced, though they have worked all their lives and had no great amount of schooling. Of course our

public school system tends to make pacifists and to teach the glories of peace, the beauties of a non-competitive world, but we are coming to a test when the fallacy of sweet reasonableness in real life will be shown and when the best competitor will kill his opponent. The test, I am sure, will show that notwithstanding our educational follies the race has not lost its strength, its bravery, its sense of duty. It takes a long time for a race to degenerate, and the founding races of this country and most of the secondary comers were strong. I am not sure one can say as much for the most recent arrivals.

Second, prohibition is claimed as the great cure for crime, degeneracy and insanity. Statistics are produced to show how tremendously prohibition has decreased social evils. One can prove anything by statistics, so they are of no value and I shall not discuss them, though I could prove by statistics that, since the modern races that have accomplished the most have been drinking, even drunken races, drunkenness is a good thing—a manifest absurdity. The explanation is that these races are inherently superior, and that the only good alcohol did was to be the fool killer and hence rid them of their weaklings. The thought of prohibitionists is that alcohol is the cause of degeneration; the fact is that the craving for alcohol, not its use, is a sign of degeneracy or a symptom of insanity which itself is a disease of bad protoplasm. No healthy youth craves alcohol, no normal young man wants to be a drunkard, nor does he ever become one. But the degenerate youth does crave drink, does not care whether he becomes a drunkard or not and gets a sensation from alcohol that the normal man does not get. Prohibition has never been enforced for any length of time and if it could the degenerate would continue to degenerate. The statistics proving the tremendous improvement in prohibition states are fallacious. The hospital statistics are of no value as proving anything, because what type of insanity is most common in them at any time depends upon what is the most recent scientifically fashionable disease. To-day it is dementia præcox in most institutions and the euphemism "constitutional inferiority" is replacing the brutally frank but correct word, imbecility. When tobacco is claimed to be the cause of insanity, plenty of statistics will be brought forth to prove the claim. The crusade against it, started by King James of not holy

memory, has been revived and is gaining ground. Coffee's turn will come next.

That drunkenness leads to great evil everyone knows, but the way to deal with it is not by prohibition but by public opinion, which is stronger than any law. The wicked railroads and the other criminal employers of labor have, by refusing to employ drinking men, done and are doing more for temperance than all the laws on the statute books. The real evil of alcoholism is not that it kills its victims, but that they drag down others with them. If its effects could be confined to its victims it would rid the world of useless people and the race would be improved. There is, it is true, one type of degenerate who is made more normal by alcohol and other drugs. I mean that peculiar member of the genus genius who is saner when under the influence of drugs than when sober. Sometimes his work is world important, work that the world much needs. Now such work is so much needed that I am inclined to think men of his kind should somehow or other be encouraged. They are very rare. In the average man the apparent increase in mental power in certain stages of intoxication is a self-delusion.

One of the alcoholics who deserves sympathy is the real periodic drinker. He sometimes is a man of unusual ability; he often is a man of good brain power and morally sound. Prohibition might save him, I do not know. I have not treated enough cases of the genuine disease to draw any conclusions. A few have, after years of struggle recovered; more have only succeeded in decreasing the number of attacks. A very small number, when permanently deprived of alcohol, have suffered from periodic attacks of manic-depressive insanity. But the real periodic drinker is not frequent enough to be the problem in sociology which the common drunkard is.

I have painted a sad, hopeless, pessimistic picture. The only definite thing I have proposed has been the confinement for life of the imbecile, the habitual criminal and certain of the insane, with asexualization of a certain group of the insane. That these things will ever be done, I do not believe, though I have great hope that the state will more and more take over the care of the imbecile and the insane. As to the criminal, the present tendency is more and more away from punishment of any kind, more and more toward regarding him as an unfortunate whom we can by

moral suasion and kindness and sweetness make into a good citizen. Worse than this the average citizen is taking no interest in the crime question and when he happens to be on a jury, a duty he too often tries with all his power to avoid, the verdict is oftener the result of his emotional reflex than of any reasoning. The worst result of our attitude toward crime and the criminal is that the rising generation is unconsciously learning to regard crime not with horror but with a sympathy which sometimes leads to evil acts. Cannot then something be done to improve things and to decrease the percentage rate of degeneracy? Much can be done, not by the panacea of passing laws but by stiffening the moral backbone of the people.

The greatest factor for evil is that we have been living in a dreamland for years. The tremendous wealth of the country and its freedom, or rather apparent freedom, from external dangers, have made life easy. The internal evils and their causes only a few pessimists and optimists have seen, and the latter though seeing have not perceived. The loss among many people, especially those who above all need it, of any religious feeling, fostered by the common democratic belief that everyone is competent to have an opinion about everything and lead his life accordingly, has produced much evil and no good. Only philosophers, and not all of them, are competent to have private views on religious matters and the wise ones among them keep very quiet about it.

We have set aside the old view that men should be praised and honored because they have surpassed their fellows in accomplishment and have put in its place the theory of the monkey parliament. We have carried this so far that even in the schools, boys must not have personal rank lest Tom be hurt because Dick is at the head of the class. Therefore, we will not have any number one boy. Our whole school system instead of being arranged that the boy with intellect may get the best possible education, is so arranged that any boy above the imbecile class may pass from grade to grade. The bright boy does not have a fair show. Fortunately he can educate himself. In our colleges boys are wisely not permitted to choose what courses in physical exercise they shall take, but, on account of the pernicious elective system, which fortunately is going out, they are unwisely permitted to study what they like, so that while formerly a college degree

meant a definite thing, to-day it means only that a boy has passed so many years in such and such a college. Fortunately the colleges do still, in the good old-fashioned way, give the boys four years of time to develop, for the newer subjects taught, especially the politico-sociological courses, which are very great favorites with the boys who cannot study Latin, Greek and mathematics, chemistry and physics, require no mind to learn and do not interfere with the natural mental growth. Democracy has gone so far into license that children must not show respect to their elders even by using the harmless and formerly thought-to-be polite word "Sir." Politeness indicates subserviency.

The things we need to remedy our ills are intangible, imponderable. When children are taught obedience, truthfulness, industry, and a desire to excel, when men realize they owe a duty to the state, when there exists a contempt for weakness and a love of strength, when the symptoms of degeneracy create disgust and not a sympathy turning into love, when the man of strength and mental power, and not the blatherskite, is respected by the people and accepted as their leader, when we cease to be influenced by parlor sociologists and idealistic dreamers, when we realize the inequality of men and accept the rule of the strong, then degeneration will no longer be on the increase but fall back to its proper place.

We are on the verge of a great struggle which with all its horrors has yet its good aspect. We will emerge from it stronger, wiser, better. War is not a favorable soil for the increase of degenerates. It kills many of the best men, but it also destroys much foolish philosophy. It makes people keep their feet on solid earth.

DISCUSSION.

THE PRESIDENT.—Dr. Burr's exceedingly interesting paper is now before you for discussion; it covers a very interesting topic and I trust members will not fail to add something to the subject in the way of discussion.

DR. WHITE.—Mr. President, I would like to acknowledge publicly that I belong, in accordance with the definition of the speaker, to a group of pseudo-psychiatrists and that, because I do not agree with him. I should be very sorry to agree with a program that was so statically concrete and so filled with repressive measures. I listened with a great deal of interest to a previous paper that was dynamic and fluid, and then we come to the anticlimax of the whole situation and a lot of static propositions. I think it would be too bad to go away from this meeting without antagonizing some of these propositions, for I believe we make a great mistake when we lay at the door of heredity so many things; to say that so many irregularities are

explained by differences in the germ plasm; all this is nothing more nor less than building up a program of doing-nothingness. If you cannot change the germ plasm it is all over. We know perfectly well that some actual conditions of misconduct have been traced to social and environmental circumstances that could be remedied, and if we approached those problems with the idea that they were grounded in the individual and not curable we would be destroying absolutely any possibility of any viewpoint and I think it was a speaker this morning who said "Without vision the people perish." Then with respect to shutting everybody up for life that some psychiatrist may believe to be imbecile. I never heard that before but once, and it was said then by a police official. Now, it does not seem to me that it is worthy of this Association to stand sponsor for it. Dr. Fernald would tell you if he was here that 50 per cent of his feeble-minded boys go out into the world and lead lives of useful citizens in a limited simple sort of a way and do not procreate their kind, and they do not do this for very well recognized psychological reasons which I could mention, but it is not worth while now; but most of those feeble-minded children are defective in their biological equipment that would lead in those directions, and many of them are sufficiently intelligent to realize their defect and they know enough of their responsibility to the herd not to want to procreate. And so without wanting to go into the details of the question I cannot let it pass without opposing the proposition to imprison these people for life; to cut off this class of people who are leading useful lives even though they do not turn out to be the individuals at the head of the procession.

DR. SOUTHARD.—Mr. President, I always rise to speak when I find that I can agree with Dr. White, and that is the reason why I rise at this time. I agree with him in the statements he has made in opposition to the paper read by Dr. Burr in part; but I am sorry that he did not talk about the prohibition element which seems to be stirring at this time and concerning which I had hoped he would say a word. Dr. Mitchell would be more competent than I to discuss that matter, especially concerning experiences in Maine.

Another matter that touches me very closely is this question of mob psychology brought up by Dr. Burr. Dr. Burr says people have very little intellect. After all, he may be speaking about the Philadelphia standard. Of course, in Boston, we count ourselves as having some intellect, although I like to recall that my mother once said to me "Boy, average people are so much below the average!" But for my part I feel that the average people have average intellects and I wonder whether it does much good to make such alarmist statements as those of Dr. Burr about mob psychology.

THE PRESIDENT.—I know Dr. Southard does not make rash statements and as he has mentioned that Dr. Mitchell is better qualified than himself to speak on certain features of Dr. Burr's paper, I will ask Dr. Mitchell to speak on that point mentioned by Dr. Southard.

DR. MITCHELL.—I have listened with careful interest to Dr. Burr's opinions and my personal views concerning the influence of factors other

than alcohol in the development of chronic alcoholism are in substantial accord with Dr. Burr's conclusions. Alcohol certainly weeds out the persons of unstable mentality with deadly certainty, as anyone who has studied the life histories of persons suffering from the alcoholic psychoses will testify. But such a review will not justify the assertion that a high percentage of these patients would have become insane whether or not they developed the liquor habit, nor can I adopt the fatalistic belief that the chronic inebriate must necessarily have failed in his social relations regardless of whether or not he became a drunkard. While the failure of a natural endowment may be emphasized by intemperance and a breakdown hastened by this cause, it is certain that many inebriates who become social wrecks would not have failed were it not for the use of alcohol. Every restoration from the effects of chronic alcoholism emphasizes the accuracy of this statement. The percentage of restoration is unfortunately low, but not by any means negligible. It would undoubtedly be much higher were it not for the social customs which confront with constant menace every person seeking to avoid the consequences of the liquor habit. Every inebriate must seek his restoration through the life-long practice of total abstinence. Against this course the individual is confronted by constant suggestion, if not pressure of association. The saloon, the pocket-peddler, the customs of the day and the influence of associates are practically united in an effort to break the will power congenitally deficient and further weakened by the habit. Society, thus by its stamp of approval on a useless custom, to speak most charitably, acts to inaugurate a habit which is surely to cause the downfall of many thus starting to follow social customs, and then operates to remove almost every opportunity for relief. At some time in the far future I believe thinking persons will appreciate that social tipping is the breeding ground for inebriety and its consequences and that there will be less general approval of a custom that not only weeds out the defective, as suggested by Dr. Burr, but also causes countless failures in persons who otherwise would have completed useful lives.

DR. MEYER.—Mr. President, I would like to say just one word on a subject that I think has been misleadingly treated in the paper read by Dr. Burr—I refer to education. Dr. Burr may think that because he has been giving us old-fashioned notions, he may not be as wild as some of those whom he criticizes, but I think he has given us an example of confusing wildness of recommendations. The rank and file of cases do not merit the treatment he would suggest for them, and if he thinks that it is possible to advance his cause by recommending wholesale requirements which will never be taken up by legislatures and which no country can carry through—I mean the locking up of all the individuals whom he should study and help but not merely lock up—and if he thinks that he is advancing the cause by his demands, he is very much mistaken. It is by that sort of wholesale reiterations of impossible recommendations which cannot be carried out that progress is retarded. I should hope that by and by extravagant statements will drop away and a moderate and more constructive program will be put forth.

DR. BURR spoke briefly in reply.

EXTRA ASYLUM PSYCHIATRY.*

By L. PIERCE CLARK, M. D., NEW YORK.

I think all of us are aware of the great change that has come over the character of medical work done in state hospitals for the insane, as compared with that of a quarter of a century ago. Formerly if one had suggested to the asylum medical interne that he should take careful notes of even his general medical work to assist him in outside practice, he would have been laughed to scorn. What with the lack of facilities for diagnosis and treatment of general diseases, the amount of experience the physician obtained in a state hospital for the insane, his time thus spent illy equipped him for any sort of general practice in the outside world. What a change in this respect has been brought about since that time! I venture to say that there are few general hospitals outside the large cities that train their internes for the general practice of medicine as thoroughly as the average well-appointed hospital for the insane to-day.

To follow the same idea further: Formerly an interne's chance to use his special knowledge of mental disease in private practice was absolutely nil. Indeed, I myself was told by several eminent neurologists that I had better not mention my internship in asylum work if I expected professional advancement in outside practice. Aside from a chance to make legal commitments and become associated with private sanatoria, the professional opportunity to use one's special knowledge was practically non-existent.

Two obstacles have slowly been overcome to bring about a better situation for asylum physicians. The first and greatest one has been the radical departure in the character and quality of work expected of the state hospital physician. I need not tell you, who perhaps know better than I, what this change has been. One needs but to look at the type of examination and case records, now kept in the modern hospitals for the insane as compared with those made formerly, to fully appreciate the great signifi-

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cance of the improvement. Formerly the records of the insane were perfunctorily done and concerned themselves largely with mere anecdotal sketches of the several psychoses. At present they are the equal if not the superior to any in any branch of internal medicine. Nor do the preliminary records merely note the improvement. The continued study of the psychoses in their changing reactions are detailed and precise, hardly equalled in neurologic medicine. Yet, with all these changes and improvements in the type and character of asylum training, the hospitals for the insane as a whole need to look closely to the general character of their work in future. This warning is in part due to the rapid advance which psychiatrists have brought about in the minds of the general public. The latter has grown to expect that with our keen mental training and sharp insight into the causes of insanity, that we all shall take a more active part in stalling and preventing the community forces that make for mental dilapidation in its broadest sense. The complaint psychiatrists often make, or used to make, that the mental cases are not brought to the asylum early enough for successful treatment will not of itself correct this evil in mental medicine. We must train our young men to take a more active part in extra asylum work, the pre-asylum mental clinics, the after care work and all that concerns the mental hygiene of the community. Many such activities are here and there in evidence, but we must enlarge and extend them. The work must not begin and end here; we should give our hearty support to the extension of psychiatric experience in the school clinics, to poor authorities, the courts, not only children's but the adult courts including those dealing with domestic relations, the police and the like agencies dealing with mal-adaptive and socially unstable persons. Many of us might possibly disagree as to the exact diagnosis and classification of the mentally unstable individuals, who come before these agencies for help or correction, but if we avoid pigeon-holing or labeling them, and look frankly at the practical problem they present, I think all would agree in the main upon what the striking faults are and settle upon a practical corrective plan of care and treatment such individuals should get from us. I think we can't begin too early to train the asylum psychiatrist to take part in this work. It should go hand in hand with his more precise and technical intramural training. In both

fields of work he should, of course, work under and with trained men. A closer association by medical societies with his outside medical brethren in the community life about him makes the asylum psychiatrist keener and broader in his view of the forces that make and destroy mental health. But we must not stop here in our medical guild spirit but engage with as many of the community activities as possible. The latter, especially, will increase and broaden our cultural background as well as quicken our diagnostic acumen and therapeutic resourcefulness, even though the asylum physician may not ever care to engage in outside practice. I think in the past we have been a little too apt to look on the interne who hopes ultimately to take up extra asylum practice as one who should be discouraged in such tendencies. Inasmuch as the great majority probably pursue this course we should give encouragement instead of discouragement to them. I venture to say that at least half of the average neurologist's private practice is, in its broadest sense, psychologic if not distinctly psychiatric, and a training along the latter lines will eventually be the greatest asset for gaining and keeping a neurologic practice. Mild types of manic depressives, the beginning *præcox* disorders, and all the psychoneuroses ought to be largely in the hands of psychiatrically trained physicians. Such cases come to the outside neurologist months or years before they break down into frank mental disorders requiring asylum care. This fact should be a great incentive to state hospitals to steadily train their internes to look forward to entering this private field when professional preferment in the hospital service is not at hand. Perhaps to further this trend a third or a half of the interned staff could easily be allowed to live outside the state hospital where community life and its stimulus would help to further the ends of both the physician and the institution served.

It is impossible for me to more than outline the extramural advantages for well-trained psychiatrists in public service to-day. For instance, there are scores of permanent and well-paid positions and their numbers are increasing daily, for medical men psychiatrically trained and capable by general temperament to fill these important places in this country. The call for these men is increasing daily. The chance for public service, however, is but an insignificant field of extra asylum activity compared with

the earnest demand for such psychiatrists in private practice in every large community to-day. The cultivation of that sort of tact commonly learned by the average physician in his first years of private practice should be a distinct part of the asylum physician's training if he is to succeed in the outside field later.

Finally, one may question, where are we to get able men to go in for this sort of psychiatric training? I think we must encourage all teachers in the medical schools to set before their students the attractions and the chances for professional and social advancement such psychiatric training possesses. We should all work for this end by seeing that as many capable and bright young men enter this field of medicine as in other fields of internal medicine and surgery.

In conclusion, I believe the more actual bedside teaching the subject of psychiatry receives in the schools, the more students will be encouraged to take an interest in psychiatry and thus advance the interests of our specialty everywhere.

DISCUSSION.

DR. ROSANOFF.—Mr. President, it pleased me very much to hear Dr. Clark's paper. Nearly a year ago a survey of mental disorders in one of the counties of New York was undertaken. That survey was undertaken with no idea of the multitude of psychiatric problems that existed outside of the institutions. When we got through we came to realize that cases presenting psychiatric problems existing outside were much more numerous than those which had been taken care of through institutional provision, yet this is only one piece of work. It is, therefore, especially interesting to note that a gentleman of fine psychiatric experience, who has subsequently gone into private practice of neurology and psychiatry, finds problems identical with those that we found. The independent observation of data made by two workers, not working together, makes the findings of either one much more trustworthy than they would be alone.

DR. ABBOT.—In my student days, when I was already thinking of seeking a position in a hospital for the insane, one of the teaching staff at the medical school asked me "What do you want to bury yourself out there for?" That fairly represented the prevailing attitude of the general physician at that time. This attitude is changing and the general physician is beginning to see that there are mental sides to every case. The more they see, the more there will develop a willingness to encourage rather than to discourage the students' going into the specialty of mental diseases. An evidence of this change is the opening of a psychiatric out-patient clinic at the Massachusetts General Hospital this spring.

DR. HARRIS.—Mr. President, it seems to me that it is along the lines as stated by Dr. Clark that we have a way in which we will be able to do great good to the community. I have thought that medical colleges should take up the question of psychiatry and have it taught in the same way that general medicine is taught; that clinical material for proper study should be furnished by the hospitals where mental cases are received, and that the medical students should have bedside instruction in a hospital where every form of mental disease is treated. It seems to me that it would be well for the majority at least of students graduating in medicine, to spend considerable time in a hospital for the care and treatment of mental cases. There is a wide field for usefulness. I remember very well upon entering the hospital service in New York a number of years ago, that the salaries were very small, something like \$25 per month, but now medical internes start at \$1000 per annum and maintenance, and yet nearly all of the hospitals suffer from lack of physicians. I think this would be remedied only by a process of education along the lines suggested by the various speakers.

DR. RUSSELL.—Mr. President, it seems to me that this is really quite an important subject. Here in New York and in other parts of the country you can see a great demand for psychiatrists outside of institutions; and there is one point which I would like to bring forward; and that is that psychiatric work is really being taken up by people who have no medical training and yet are known as clinical psychologists, etc.; and unless the physicians who are trained in psychiatry do go into that field, with proper instruction, there are going to be complications and difficulties which I think will not react beneficially to the medical profession or to the community.

DR. WALTER B. SWIFT.—Mr. President, I should like to confirm the remarks of Dr. Russell. Since my arrival here in New York I have been approached by several "so-called psychologists" trying to take over the functions of *trained psychiatrists*. On the card of one I find psychoneuroses put down with other matter that points to their being "mental specialists." This is surely a serious matter and an imposition upon the public. It suggests that we need a broader definition of medicine in law.

DR. CLARK.—Mr. President, many of us here in New York have been made aware of the fact that a number of psychologists have been making a definite effort to preempt the field of our cases under the semblance that they are treating them at the request of physicians. We know of several psychologists who are trying to practice in this city, and the New York Psychiatric Society is taking up the matter and is also publishing resolutions about it in the medical journals. It is an unfortunate fact that oftentimes the school authorities and the public think that when there is a definite maladjustment or disorder of conduct in children, these issues are for the psychologist to set straight and not the trained psychiatrist. If the psychiatrists would but more fully recognize their obligations and the breadth of their work in these borderland fields of medicine, it would result in fewer psychologists trying to practice medicine.

DOES THE PARETIC GOLD-SOL CURVE IN PSYCHIATRIC CASES ALWAYS INDICATE SYPHILIS OF THE NERVOUS SYSTEM?*

By PAUL G. WESTON, WARREN, PA.

In the course of fifteen hundred routine examinations of spinal fluid (Wassermann reaction, globulin tests, cell count and gold-sol reaction) it was found that the fluid from three patients, who had no history of syphilis and no positive Wassermann reactions and two negative luetin tests, caused a precipitate of colloidal gold in the paretic zone.

The histories of these three cases are abstracted as follows:

CASE NO. 9037.—Admitted August 7, 1915. Abstract by Dr. Finlayson.

Patient is a female, Protestant, housewife, age 52 years. The family anamnesis reveals a good heredity. The patient's early life was spent in Canada and her home surroundings were good. She received a common school education supplemented by musical instruction and fair progress was reported. There have been no physical illnesses which seem to have a bearing on the psychosis, except an occasional fainting spell. These she has had for years. In March, 1915, while going upstairs she fell and was rendered unconscious for about 20 minutes. She was sent to St. Vincent's Hospital and remained there for three weeks suffering from a general breakdown. Menstrual history is negative, the menopause having been passed at 50 years of age. The patient has been married twice, has borne two children and has had three miscarriages. She smoked cigarettes for many years and used morphine for two years following a surgical operation for laceration of the uterine cervix. She has used alcohol moderately but never to excess. The first mental symptoms were noted last March. After she returned home from St. Vincent's Hospital she developed the idea that her husband had been going about with a disreputable woman. Her ideas of infidelity increased and she thought her husband wanted to get rid of her. Sometimes she would scold at the firemen working near the house, telling them to go inside. She entertained ideas of persecution and thought the neighbors were stealing things from her. She was jealous of every woman in the neighborhood, chased one woman out of the house and became angry at any one who came to her door, as she said they came only to torment her. She entertained some somatopsychic ideas relative to tuberculosis and pregnancy and stated that she saw her mother appear on her bed every night. Her memory was poor in the recent field, and she became so ugly toward her husband that he had her sent to jail. She neglected her work and was careless about her personal appearance. On

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admission to the Warren State Hospital, August 7, 1915, she was boisterous, profane, untidy in her dress and exposed her person needlessly. Auditory hallucinations were not prominent at first, but have occupied her attention since, more frequently during the day than at night. Considerable deterioration, mild grandiose ideas, narrowing of the mental horizon, defective memory in remote field and absence of insight were demonstrable. She was not disoriented. Physical examination showed a fairly well-nourished woman, deep reflexes slightly diminished, pupils irregular and a diminished light reaction. At present she is very much demented but able to appreciate her surroundings, call the physicians, nurses and many of the patients by name and is approximately oriented. She knows how long she has been here and the different wards she has been on. No evidence of delusions or hallucinations could be elicited by questioning, but she became very noisy at times, undoubtedly in reaction to auditory hallucinations. She is extremely untidy in habits and appearance. No speech defect is noticeable with the usual test phrases. At times she seems to fabricate to fill in memory gaps.

Laboratory reports are as follows:

Date.	Bld. WR.	Fld. WR.	Glob.	Cells.	Gold-Sol.
9/3/15.....	—	—	+	0	5555400000
1/11/16.....	—	—	—	24	5555541000
5/6/16.....	—	—	—	0	5444300000
10/25/16.....	—	—	+	36	5555544211

Luetin tests on March 10 and March 17 of this year were negative.

CASE No. 8304.—Admitted July 23, 1913. Abstract by Dr. Darling.

Patient is a male, age 39, married, laborer, nativity, Pennsylvania. Maternal great-grandmother, grandmother, great-aunt and two aunts as well as a paternal aunt were insane. Alcoholism and neurotic taints are frequent throughout entire family. Early training was poor and educational advantages were limited. He has always been considered of a neurotic disposition and never made a success of life. For years he was addicted to the excessive use of patent medicines and for one or two years, just previous to admission (1913), he used laudanum regularly. When 28 years old he had gonorrheal arthritis which left an ankylosed right knee. When 34 years old he contracted pulmonary tuberculosis which was soon followed by "acute rheumatism" that resulted in greatly impaired motion of both ankles, elbows, wrists and cervical vertebra. At 35 he became hypochondriacal, self-accusatory, fearful of "secret orders" and developed suicidal tendencies. At the same time he imagined he heard people trying to break into his home on several occasions. His manner suggested agitated worry. This condition lasted about one year. Then although the auto-accusatory ideas persisted and his ordinary manner suggested utter dejection, he lost the real affect previously connected with his troubles, spoke of them in a matter-of-fact tone and developed much interest in the ordinary affairs of life. His present attitude towards life is summed up in his own words: "I am suffering but it gives me comfort.

One can suffer for a good cause. When I was resurrected I was made clean." Now he is interested in current events, well informed about hospital happenings, sociable and generally agreeable. His knowledge of elementary subjects is very limited, his judgment is childish and he has but little ability to do mental work. In general memory is good, but he fails to recall clearly events during the height of his acute mental upset. The only suggestion of delusions present now is a puerile interpretation of the Bible and a tendency to explain all his troubles by religious texts.

Laboratory reports are as follows:

Date.	Bid. WR.	Fid. WR.	Glob.	Cells.	Gold-Sol.
7/30/13.....	—
9/8/14.....	—	—	+	0	4445440000
9/25/14.....	—	—	+	0	5555421000
11/15/16.....	—	—	—	0	0000000000
5/9/17.....	—	—	—	0	4444321000

Luetin tests on March 10 and March 17 of this year were negative.

CASE No. 8958.—Admitted June 12, 1915. Abstract by Dr. Finlayson.

The patient is a female, age 43 years, married, housekeeper and a Protestant. The anamnesis shows insanity and alcoholism in the atavistic line; indirectly, epilepsy, feeble-mindedness and alcoholism and in her fraternity are found alcoholism, moral delinquency and tuberculosis. The patient's birth and early life were uneventful. She made poor progress in school and reached the fifth grade at the age of 15. She worked as a domestic until the time of her marriage but never received over one dollar and a half a week. She was married at the age of 20 to C. R., a core maker. Married life was not pleasant as the husband neglected and failed to provide for her. There were four pregnancies by this union, the first two were girls who died shortly after birth, and the other two were boys, now 18 and 13 respectively. Nothing is known about their mentality. No miscarriages occurred. The patient began to have epileptic seizures of grand mal type between 15 and 20 years of age. At first they were of infrequent occurrence, but have been increasing in frequency and severity, and some are followed by periods of confusion and irritability, but automatic states have never occurred. The patient was a frequent beer drinker when living with her husband and occasional intoxications are recorded. Venereal disease is denied.

The patient became incapable of caring for herself because of her mental condition and went to live with her mother about 12 years ago. She became increasingly more irritable, threatening, abusive and noisy and was taken to the county home about three years ago. She had some vague persecutory ideas relative to her friends. At the home she became more incapable mentally, threatened suicide and homicide, but attempted neither, and for these reasons was admitted to this institution June 12, 1915. On admission she was quiet, indifferent, uncommunicative, partially disoriented, showed gross speech and memory defects, low order of mentality and no insight. Attention and apprehension were disturbed. She soon became violent,

destructive and threatening. She has had an average of four grand mal attacks per month and has become markedly demented.

Physical examination shows numerous scars due to falls during seizures, abdominal operative scar, fractured nose, absence of many teeth, enlarged thyroid, blood pressure 122, systolic, palpable radials, varicosity of veins of lower extremities, heart sounds irregular and intermittent with an accentuation of the second aortic and pulmonic sounds. Pupils are partially dilated, irregular in outline, slightly unequal and have a limited light reaction; deep reflexes are exaggerated and there is some analgesia to pin pricks.

Laboratory reports are as follows:

Date.	Bld. WR.	Fld. WR.	Glob.	Cells.	Gold-Sol.
4/3/15.....	—	—	—	6	5433000000
6/12/15.....	—	—	—	0	5544430000
8/4/16.....	—	—	—	0	5444410000
10/25/16.....	—	—	+	0	0000000000
5/15/17.....	—	—	—	0	0122110000

Luetin tests on March 10 and March 17 of this year were negative.

The colloidal gold used was exactly neutral and the tests were controlled with a number of known positive and negative spinal fluids. The Wassermann reaction was performed in a manner previously described in detail¹ and 1 c. c. of fluid was used for each test.

The above three cases were chosen because there was no history of syphilis—and it is admitted that with the insane in particular, the absence of a history of infection is of little value—and no laboratory evidence of syphilis other than the gold reaction. I do not consider an increase of globulin or the presence of twenty or thirty cells, when taken alone, to be indicative of syphilis. We have repeatedly found an increase of the globulin in the fluids from patients who were not syphilitic.²

What constitutes clinical evidence of syphilis of the nervous system, except in frank cases, is a matter of opinion, and the reader may draw his own conclusions concerning the cases here reported from the abstracts of the histories given above.

A number of cases have been found in which all the laboratory findings of syphilis were negative except the gold reaction, but in each case a history of syphilis, or a positive Wassermann reaction on the blood or fluid or both was obtained at some time. Here, however, are three patients who never received anti-syphilitic treatment, so far as can be determined, and who have no laboratory evidence of syphilis after repeated examinations of blood and fluid over a period of more than two years. This, of course, does not rule out syphilis, for it is much easier to prove that one has been

infected than that one has not, and these cases are presented not as non-syphilitic but as cases not shown to be syphilitic.

The fluids from two cases showed reactions in the paretic zone on three occasions and a wholly negative reaction on another occasion. The change in reaction did not coincide with any change in the patients' mental or physical conditions. The third case, No. 9037, had four reactions in the paretic zone and no negative reactions. On two occasions there was increased globulin and increased number of cells, but no positive Wassermann on either blood or fluid. These findings together with the clinical evidence suggest syphilis of the nervous system much more strongly than the findings in the other two cases.

The question naturally arises, "Is the paretic curve produced only by fluids from paretics or those potentially paretic?"

It has been shown* that the gold precipitating substance is not the Wassermann producing substance and can be separated from it. The substance is dialysable and can be precipitated by ammonium sulphate and is therefore a globulin. One might speculate on the cause of the appearance of this globulin; whether these cases are not syphilitic in spite of negative laboratory findings and so on. I do not think this is the time for speculation but rather the time for gathering facts. Let us await the reports of more cases, further observations on these cases, and most important, reports of microscopic examination of the brains of these patients when they come to autopsy.

The question of whether the paretic curve ever occurs in psychiatric cases, not syphilitic, is left open.

NOTE.—Since this paper was written, the fluid from Case No. 9037 was again examined with the following result:

Date.	Bld. WR.	Fld. WR.	Glob.	Cells.	Gold-Sol.
5/18/17.....	—	+	—	0	5544421000

The result of this examination will exclude this case from the "not shown to be syphilitic" group. Incidentally, this "last minute" examination emphasizes the necessity of repeated examinations over a long period of time and warns one from hastily drawing conclusions.

REFERENCES.

1. Weston, Paul G.: Jour. Med. Research, 1914, XXX, 377.
2. Weston, P. G., Darling, I. A., and Newcomb, P. B.: American Jour. of Insanity, 1915, LXXI, 773.
3. Weston, Paul G.: Jour. Med. Research, 1916, XXXIV, 107.

REVELATIONS OF THE UNCONSCIOUS IN A TOXIC (ALCOHOLIC) PSYCHOSIS.*

By C. C. WHOLEY, M. D., PITTSBURGH, PA.,

*Member of Psychiatric Staff, St. Francis Hospital; Assistant Neurologist,
Western Pennsylvania Hospital; Instructor in Psychiatry,
University of Pittsburgh.*

The case I am going to present is of the type which ordinarily the psychiatrist would not approach from a psychoanalytic point of view. Looking at the patient clinically, we find present, in a man of 52 years, a picture of the usual type of alcoholic hallucinosis which would probably be interpreted, in the light of his history, as destined for chronic dementia. But on the other hand approaching the case psychoanalytically, we find certain psychogenetic elements obtruding themselves so persistently as to make it seem that the psychosis presents a culminating chapter in a lifelong conflict in which inherent moral, or ethical forces, have been struggling for supremacy. And it is probable that this patient's alcohol has been but a commanding instrument which has served to make possible the repressions characterizing his career. For the revelations coming out in the psychosis present evidence of a struggle toward a reintegration of the individual's social and ethical instincts upon a higher and healthier plane. At all events, the psychosis has presented the extraordinary feature of enabling the patient to view his past conduct in a spirit of social fairness, and to realize moral values to an extent altogether foreign to his previous supposedly normal existence. If the alcohol itself has not set going certain organic factors making for dementia, it is not improbable that the psychotic episode may eventuate in the establishment of the individual upon a saner and more adequately balanced plane of activity.

The patient was placed, when brought to the hospital, in the surgical ward, owing to neck wounds, self-inflicted in an endeavor to commit suicide. His mental condition was such that I was asked to see him. He was "hearing voices," they said. I found him a man of exceptionally robust physique, and recognized in

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him a patient who had come under my observation three or four years previously, because of symptoms of acute alcoholism. It had been necessary for me to interview his wife at that time, and the patient (whom I shall call Mr. N.), because of this circumstance began to exhibit toward me the customary suspicions of the alcoholic, which evidently he had carried over to the present time. As soon as these suspicions were overcome, he talked freely of his hallucinations.

The man had, until two or three years previous to this admission to the hospital, held an enviable position in business affairs. He was now entirely estranged from his wife and relatives and it was impossible, therefore, to obtain a minutely detailed account of his early years. The man himself was by nature markedly secretive. The outstanding facts of his life, however, we have at hand: He is a self-made man, aggressive and dominating in the extreme, characteristically self-assured, brusque, and uncommunicative. While not an only child, his brothers and sisters were so much older than he that he grew up in what was practically an adult atmosphere. His home was a humble one in a small town. In childhood he was of a shut-in temperament, not caring for the usual boyhood games. There was a marked affection between himself and mother; and a noticeable indifference toward his father. At 15, his father having failed in business, he set out, apparently with the utmost boldness and confidence, to make his own living and to aid in supporting the family. (We note here the significant fact that addiction to alcohol—which was to continue until a psychosis enforced his confinement in an institution—began at this early age immediately upon his plunge into a business career, a career marked all along the way by phenomenal success and accomplishment).

As to his brief history: His belief in himself was extreme. He seems always to have known exactly what he wanted to accomplish and to be able to go directly after it. Within a year or two after striking out for himself he had become an accomplished stenographer. A revealing episode occurred when he was about 17. Although he had in a very short time made rapid advancement as a stenographer, he concluded he was meant for better things and made up his mind to attach himself to a well-known business house. He went confidently to the office demanding an interview with the president. When he had been told over and

over again that the president was not to be seen, young N., our patient, informed the clerk that he certainly meant to see the official and that he would wait for him. Thereupon he calmly stretched himself out on the couch proceeding to take a nap while waiting. Finally N. succeeded in getting into the official's presence and was curtly told that there was no place for him. The young man's appearance, self-assurance, and swagger were very much against him. (This aggressiveness appears throughout his career probably as a manifestation of an underlying timidity springing from a persisting infantile homosexual level.) He insisted that he must be taken on, that the house knew nothing about his ability, they would make a mistake to let him go, etc., etc. In the end he was employed and his rise was fairly meteoric. He had a genius for organization. He proved himself invaluable, and to within a short time of the onset of his psychosis was a chief officer in the concern. In spite of his dominating characteristics, being impatient of indecision in others and tolerating no dictation from any one, he was generally well-liked by his associates. At 35 he married an attractive, talented, and highly educated woman. He was extremely proud of her and they seemed for a time to be very happy. It is to be noted that the woman he married was of a physical type entirely in contrast with that of his mother.

At the hospital, when I was called in, the patient had passed the intensely acute stages of his alcoholic hallucinosis, and his hallucinations were already beginning to group themselves pretty narrowly about two or three themes, or ideas, around which his psychosis was to center. It was the close relationship of these ideas with incidents in the patient's history, together with his peculiar mental traits, which suggested that we had here a psychoneurosis rather than the common type of alcoholic hallucinosis.

Broadly speaking, the two outstanding ideas about which his hallucinations were now centering had to do with fears of poverty and with fears of social ostracism. It was these fears pre-eminently, and ideas associated with them, of which he talked in my earlier visits, and by which his conduct was being determined.

He acknowledged having attempted suicide both immediately before his entrance to the hospital, and some weeks earlier, as well, in a hotel in another city. He said he "had been driven to it by the voices." (It may be well to digress here to note that

his recital regarding what the voices had said during his acute outbreak was what we always get from the alcoholic under such conditions. So undoubtedly the psychologic mechanism governing the suicidal attempts had presented themselves in the fashion invariably typical of an intense alcoholic hallucinosis. The regularity with which we find the alcoholic attempting suicide by throat laceration, lends confirmation to the theory that a "birth fantasy" determines the *manner* of suicide. Such an interpretation of the psychology of the alcoholic is in keeping with the theory of his homosexual fixation. The voices were "planning assassination"; he was "to be castrated"; "cruelly mutilated." And as he passed out of the state of abject terror impelling to suicide the voices "talked at him and about him"; they were "deriding and humorous"; he "is a pervert"; will not take a bath because the "water is dirty but not so dirty," the voices say, "as he is"; the setting in his "ring is emblematic of a pervert"; and he wore the setting turned inward in his palm; he has "polluted" every one he has "come in contact with"; there is "urine" in his coffee and "dung" in his food; when he turns in bed the news is "flushed all over the hospital"; he will lie for hours without changing his position because he thinks that these things signify to outsiders that he is a "masturbator"; the voices accused him of pederastic practices with "monsters, part beast and part human"; "poisonous gases" are injected into his room; "nurses are immoral"; "something is to be done to him." It is to be noted that it is not the affect-depression of the melancholic which drives these patients to suicide but an overwhelming urge to escape from an imminent death attended by the most hideous torture and mutilation. At the typical alcoholic, the voices jeer and scoff and mock, discussing at length and in minute detail the refined and atrocious cruelties to be inflicted upon him, and accusing him, with diabolical insistence, of the most disgusting sexual practices. The alcoholic's "torture" practically always includes mutilation of the genital organs.) Such typical alcoholic hallucinatory experiences had been continuous during the acute phase of the psychosis.

The "voices" (the man's unconscious, speaking) threw doubt about the legitimacy of the patient's birth. His supposed father was not his "real father." Yet there was no paranoidal development of a princely father.

As I have indicated, the psychosis did not proceed along the customary paranoid path. There did not develop any feeling of resentment toward the persecutory voices; nor identification of these with any particular individual; he seemed to feel that he was getting just what he deserved; and that whatever machinations were directed against him were entirely justifiable. This sense of a just retribution, of a deserved reward of his transgressions was observed growing up slowly but unmistakably as the psychosis progressed from week to week.

During the three years preceding the onset of the psychosis Mr. N. had lived largely in hotels and clubs, leading a reckless, dissipated and extravagant existence; and as the purely alcoholic phase of the psychosis receded, his fears having to do with social ostracism began to weave themselves insistently about such places: He had been "in some trouble in the hotel" where he had attempted suicide; the voices told him that he would not "be allowed to go into any hotel in the future"; he had been "put out of the club"; he was "outlawed"; the voices told him he would "be drummed out of the city" if he "left the hospital"; "no hotel would take him in"; "all the hotels" had him on their "black list." Such expressions were reiterated over and over. He was "penniless"; he "must not smoke"; he ought to "save the money"; it would "pay for a night's lodging" when he should be "thrown out of the hospital," a calamity which during the first months, the voices kept immediately before him; his firm would not "take care of him"; he was constantly calling up the office to see if the hospital bill had "been settled"; he wanted a razor to shave himself that he might "save the barber's fee"; he would call up his bank to learn about his "account"; no amount of assurance would satisfy him on these points. He was only convinced that he possessed any money by having the actual currency in his hands. These interwoven fears regarding ostracism and poverty for a long time remained constantly distressing, and are only now, at the end of six months, beginning to wane.

After three months' residence in a general hospital the patient's fears became so impelling that he had to be removed to a psychiatric institution. The voices told him that he was a "coward" if he didn't get out into the world; that he ought "to do some-

thing"; that he was "living on charity." The patient began to declare violently that he "must have a show-down"; that he must "try it out"; he must know "what would happen"; whether or not he was "outlawed"; whether he would be "drummed out" of town; whether or not any one would "tolerate him"; whether or not he was "penniless." (The patient's overwhelming money complex revealing itself so dramatically in his psychosis, together with the marked obstinacy, orderliness, and punctiliousness characterizing the individual, present evidence of the relationship of chronic alcoholism with homosexuality and anal eroticism).

Since it is the purpose of this paper to discuss the revelations of the unconscious brought out during the psychosis it is necessary to refer briefly to the fact that the three years previous to his acute alcoholic outbreak had been a period of vagabondage in which already there was being revealed evidence of a long-existing moral conflict. The patient, during this time, had estranged himself from all his business associations; and had deserted his wife, settling upon her a miserable sum barely sufficient for her maintenance; and he had made this settlement under compulsion; he gave absolutely no thought as to what should become of her. He had left his home, evincing no interest whatever in what became of it; and during the analysis it was learned that earlier even than this, he had for years, had no sexual relations with his wife though living in the same house with her. For three years he gave himself over to utter debauchery, immoral relations, alcoholism, and a reckless accumulation of debts. While all his life he had been fond of making a show with money, had scattered exorbitant fees, had been guilty of great extravagance where it could in any way enhance his own importance, yet until this period of vagabondage he had been scrupulously careful to keep within the bounds of his large income. Toward the end of these vagabond years the impulse, which was to become dominating in his psychosis, namely: to get back into safe, stable and conventional living, to return to business, began to drive him; but resort to alcohol kept preventing its execution. All his previous life the patient had been selfish, concerned for the most part with his own pleasure and comfort, yet with the return toward

health, and absence from alcohol, we find coming clearly into consciousness a view of life which is certainly on a higher plane of normality than that which he had evinced during the years previous to his breaking up. It is not a return to his old selfishness and aggression, and insistence on his own personality, that we find evolving out of the psychosis, but a new attitude toward ethical and social obligation. He has adjusted himself to his hallucinations in a philosophical stoical fashion, believing that he is getting just what he has earned. As evidence of a final freeing of his psychic forces from former repressions, we find that he has voluntarily, with no suggestion from anyone, requested that a sum handsomely providing for his wife be assigned to her. He does not accompany this by any request that she ever return to him. He has also asked that a certain other portion be used to cancel his debts.

I offer the following summary as a psychological explanation of this patient's career: As a boy he grew up under conditions which tended to enhance a native disposition towards seclusiveness and the development of a shut-in character. There was a very strong mother attachment with fixation upon her as the ideal woman from which he never detached himself in the normal way. This accounts for much of the subsequent conflict mainly on a homosexual groundwork with which his life was filled. It helps us to explain his addiction to alcohol, beginning at puberty and reaching the climax of intensity when he deserted his wife, and his indifference to, and final desertion of his wife, who was noticeably of a different type from his mother. In one of his dreams just previous to his psychosis, he had been married to a woman who answered in a remarkable way the description he later gave me of his mother.

His component of extreme confidence in himself, indifference to the opinion of others, and extravagant money display were in the direction of over-compensation against deep-seated feelings of a decidedly opposite character. In the analysis it was revealed that in spite of his swagger, he had felt very timid when he first ventured from home. His early and continuous resort to alcohol helped still further to exalt his ego, and to prohibit a normal social adjustment. Finally the forced and artificial position which he had

maintained for so many years collapsed as a result largely of the destructive influence of the alcohol upon his brain and nervous system. A state of delirium and physical collapse supervened during which all semblance of normal psychic functioning disappears, and a state of chaos exists. There was a disintegration of psychic guidance, and the organism was thrown back upon the caprice of primary emotions and instincts, mainly of extreme fear, chiefly terror of physical harm. When the organism had had time to recuperate from this low level, terror of pure bodily assault wanes, but with teleological precision we find the patient adapting himself on a slightly higher plane and becoming now concerned about the *means* for bodily subsistence—namely, money. Fears of poverty are in the ascendancy; and closely associated with these, we find surging into consciousness at this level of reintegration, anxieties and fears regarding the opinion of his fellow men, without whose good will and co-operation it will be impossible to obtain money, which means food, or self-preservation. Some of the affect which attaches itself now in the way of anxieties regarding money and public opinion, has, to my mind, carried over from the days of his childhood and early youth, when similar misgivings were bottled up and reacted against by a development of feelings of over-boldness, and disregard for money. Finally, the unconscious lays bare before us in his psychosis the elements of a life-long struggle, and a psyche brought face to face with primary instincts of self-preservation in the over-realistic coloring of an hallucinosis. With further re-establishment of bodily health and nervous vigor, we see those later-acquired evolutionary accomplishments of the psyche having to do with custom and convention, equity and ethics, revealing themselves in the patient's thoughts and conduct. Fears of poverty and social ostracism weaken; and definite steps are taken to square himself with his creditors and properly to provide for his wife.

The course of the whole psychosis has to the present time been away from the development of a systematized paranoid delusional state, and in the direction of reintegration upon a wholesome, normal, psychological level, which must be looked upon with considerable prognostic favor.

DISCUSSION.

DR. WHITE.—Mr. President, I do not know how a psycho-analytic paper got into this meeting, but I want to congratulate the Association upon it. The fact is most encouraging.

It is pretty difficult to discuss a complicated paper of this sort, but the general picture of the alcoholic hallucinosis is rather typical and I want to say that we would never know anything about it if we simply said that the patient had hallucinations and put down stenographically the content of those hallucinations. The doctor has worked out in his analysis the meaning of those hallucinations, to some extent, at least; how they symbolize the conflict of the individual, and he has been able to help the patient effect readjustment in such a way as to effect a social rehabilitation and this is a therapeutic endeavor of the highest kind not to be put down by absurd criticism owing, perhaps, to its more dexterously worded comments. The alcoholic hallucinosis is almost invariably an outgrowth of the homosexual life. The tendency of hallucinations invariably point to that homosexual level. I think that the effort at suicide was perhaps not an effort at death but perhaps is a birth (re-birth) phantasy. If we are going to bother about the literal meaning of words, meanings which hark back to infantile ways of thinking, we will not understand; and the reason we will not understand them is that we have passed beyond these meanings and we have to go back in our cultural history. So we can talk over and argue as to pathological symbols that indicate different levels in the cultural development of man, and we have certain types that might be correlated with these levels that are found in the various cultural strata, so that for instance, the alcoholic hallucinosis refers to a certain stage and cannot be understood unless in these terms. If we stick to the terms of our adult level we will be shunted aside from such investigations. We are going to understand something about alcoholism as soon as we get the psycho-analytic studies completed. Alcohol in this case has not been a destructive element. While it does not serve the patient any permanently useful purpose, and while we should keep far away from recommending it, it does help and it did help him out of his difficulties in some ways. Some persons know well that alcohol has advantages; they talk about drowning their sorrows; they talk about its giving them Dutch courage, and it certainly does give them a certain ability; it does assist certain types to socialize their libido. I know people who are at times incapable of any contact with other men when sober and yet with a little bit of alcohol they can effect a certain amount of social efficiency. This is a bad type of character reaction and cannot be recommended ultimately, and yet this is one of the reasons alcohol is used. And unless we find out the fundamental things that it supplies in the individual, we shall never be able to deal with these cases in a way that will be permanently helpful to them.

I am exceedingly glad that the paper by Dr. Wholey should appear here and I feel that the Association should stand by interpretative psychiatry laying aside destructive criticism and taking on constructive criticism; and that we should not rest until we have progressed further in this work.

DR. WALTER B. SWIFT.—Last week I showed before the psychopathological meeting in Boston that delinquency might be interpreted as a central lack. I have already endeavored to show that the spasmodic action of stammering may be traced to a "Visual Asthenia" a weakness in the imagery that goes on during normal speech. It seems to me that the substance of the paper just read and this condition mentioned by Dr. White can also be interpreted along that same line, but before I present my own interpretation I would like to illustrate something that Dr. White has already mentioned about getting back to the early life activities. It is known, that when college men go from high school to play football in college, they have a certain set series of mental reactions that are well instilled. They play according to those reactions. During their training in college-football they are brought up to another high standard of mental reaction in this play. Here are *two levels* of training. Now when they go to exhaustion in some big game they revert form this newer level that they have learned in college-football, to the lower more simple psychological reactions learned in the high-school-football. Now, it seems to me that this is an illustration of what I mean by an asthenia. In this whole field there has been a misinterpretation. Instead of an exacerbation of libidistic outflowing, the output of excess things is due to a lack due to asthenia. The interpretation of all these excesses of motor output should be hyperkinesis by asthenia.

DR. WILLIAM McDONALD.—Mr. President, I would like to take this opportunity for one word. It has been intimated that I am an iconoclast and I wish to state that I am nothing of the kind. I would further state that whatever criticism I have made during the last day or two on psycho-analysis is not destructive. The psycho-analyst says that we do not agree with him because we do not understand; that we do not know even the language of psycho-analysis. This is probably true. Dr. White says, "If you are going to destroy our theories and interpretations replace them with something else." Now, if we do not know what they are talking about, how can we do it? We simply demand that they present facts. It seems to me that in using terms such as the homosexual level and the like, that the speech is meaningless. They speak of split personalities; of *Sally A.* and *Sally B.*; of Sally the woman, the angel and the devil. How do they know that there are any such personalities. If there are levels show us how their existence is recognized. I say such talk is nonsense or else my brain has gone bad, for I cannot understand it. It is symbolic talk and idle interpretation. Such psycho-analysis seeks to build the ladder from the top; you must build it from the bottom and place its base on fact.

DR. SOUTHARD.—Mr. Chairman, many of the Freudian so-called quoted "facts" are peculiar interpretations of real facts that we all recognize. Take the term *libido* with all its unwarrantable extensions over a variety of real facts. Claparède, I believe, has suggested that the word *interest* covers much of the so-called *libido*, but if we follow Claparède's suggestion and replace *libido* with *interest*, what becomes of many of the libidinous

facts? A mob of men, a homosexually libidinous mob, turns into a crowd of men with a common interest. What is the difference between a "stag party" with a common *libido* and one with a common *interest*? Apparently, precisely no difference whatever! If we remove the sexual shudder from these descriptions we are left—exactly where we were before. A frequent phrase nowadays is—"translated into psychoanalytic terms we would say," etc., but why translate? Personally, I shall not wish to translate, unless I can get more from the translation than a superfluous sexual shudder.

THE PRESIDENT.—Does Dr. Wholey desire to add anything in closing the debate?

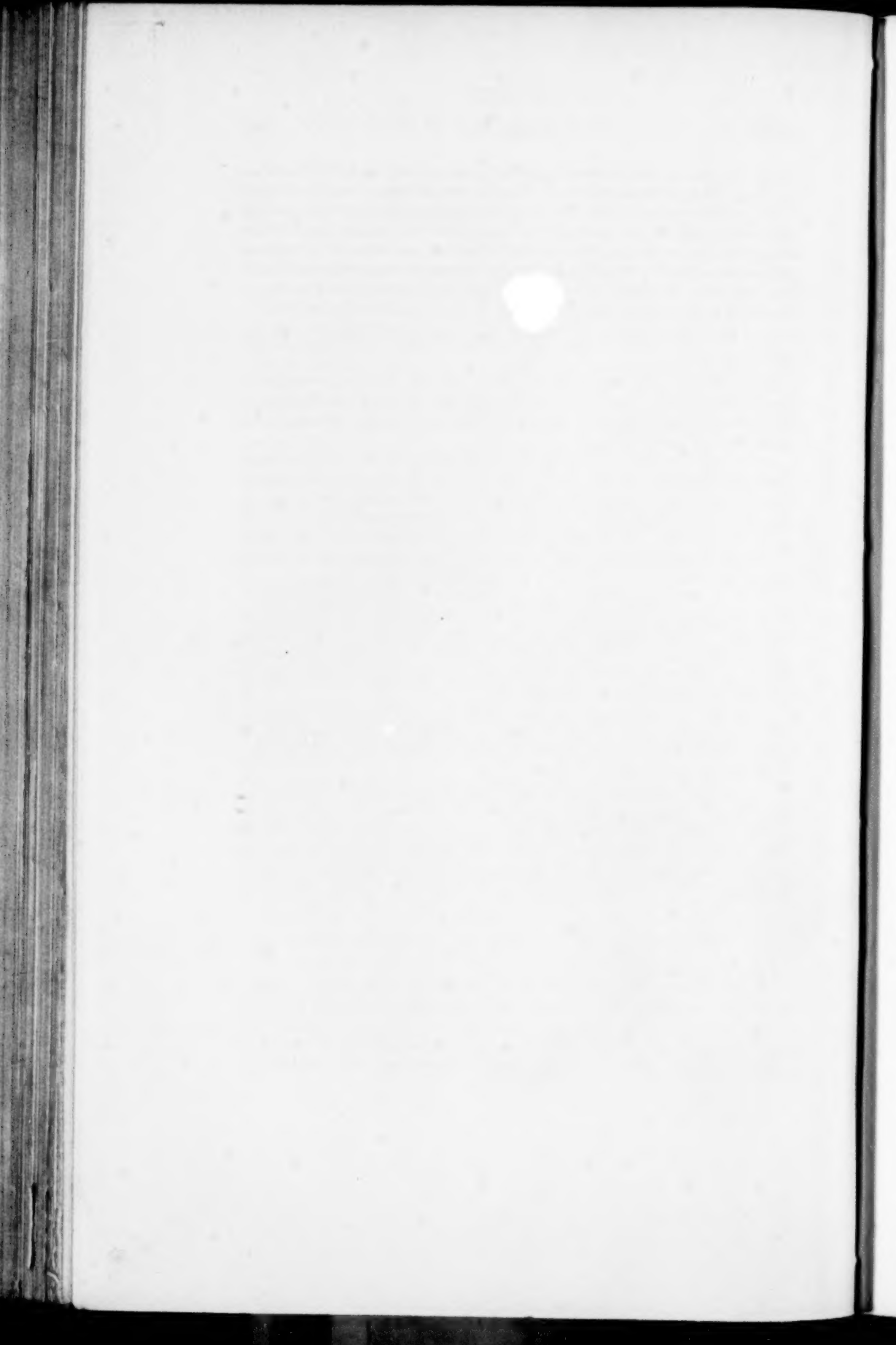
DR. WHOLEY.—Mr. President, I appreciate Dr. White's remarks regarding this paper. In the face of the prejudice against Freudian theories, those who undertake modern psychological interpretations of the psychoses, welcome such encouragement.

As to the question of the significance of asthenia in such patients, I think the asthenia element merely serves to reduce the patient's psychic activities to the level at which these libidinous outflowings come into consciousness with more facility. This fact does not contradict the Freudian theory in any way. Just as the toxic effects of alcohol may break down the barriers against repressions, so in states of exhaustion a patient may reveal his complexes in a hysteria, or psychosis.

As to the question of the "facts" supporting psychoanalytic interpretations, it seems to me unnecessary to restate facts which are definitely established. We are dealing with psychobiology, and we find the relationship of cause and effect occurring as precisely as in the realm of chemistry where the union of certain elements combine under given conditions to produce certain results or compounds.

As to the question regarding the substitution of the word "interest" for *libido*, I can see no purpose in doing so unless "interest" connotes the equivalent of *libido*. If it is used merely to appease prejudice, I think it is misleading and to be condemned.

The suggestion that every social gathering of men is interpreted by us as an evidence of homosexuality in a degenerate sense, is a misinterpretation of our position. Such an interpretation would be out of keeping with the facts of normal psychobiology. Homosexuality is a normal instinct and plays an important rôle in the development of the individual's heterosexuality.



MALINGERING. A PROBLEMATICAL CASE.*

By WILLIAM C. SANDY, M. D.,

Assistant Superintendent, Connecticut Hospital for the Insane, Middletown, Conn.; formerly Medical Director, State Hospital for the Insane, Columbia, S. C.

The simulation of mental disease is rare, but cases of suspected or alleged malingering are met with, especially in medico-legal work associated with capital crimes. It is a rather common fallacy among the laity and the general medical profession that feigned insanity is of fairly frequent occurrence. Actual instances, however, are unusual and some psychiatrists may never see a single case.

The difficulties of simulation, alone, would seem to preclude, in most cases, the possibility of malingering. One will readily admit that neurotic symptoms may be assumed, those of a subjective nature, the evidence of existence of which depends largely upon the statement of the patient. Even such instances are less frequent than commonly believed. Single symptoms may be simulated or exaggerated, in the traumatic neuroses existing physical abnormalities may be falsely ascribed to the injury, suggestible hysterical individuals may imitate others and, as found in military life, a mentally diseased person may endeavor to simulate recovery in order to resume active duty. Insanity, however, as a prolonged departure from the patient's usual mode of thinking, acting and feeling is quite a different proposition. When the intensity of the excitement, the unceasing, restless activity, the prolonged period of sleeplessness and other characteristic signs of a manic condition, the deep and lasting depression with the diagnostic facies of a depressed state, the mannerisms, absolute change of personality, emotional deterioration or fixed delusions of a præcox, or the physical evidences of an organic condition, are considered, it seems doubtful that any of these could even be momentarily assumed without prompt detection by experienced psychiatrists.

Among the so-called prison psychoses, however, there are certain reactive disturbances of which the mode of onset, the symp-

* Read at the seventy-third annual meeting of the American Medico-Psychological Association, New York, May 29-June 1, 1917.

toms and course, may give rise to the suspicion of malingering. Especially is this true in those conditions which develop after the commission of a crime and while the prisoner is awaiting trial or execution. The patient may become acutely confused, hallucinatory, stuporous, catatonic, disoriented and show marked memory and intellectual defects or develop a delusional trend. Any of these may continue for an indefinite period but quite promptly disappear upon removal from a distasteful prison environment, pardon, or the occurrence of some equally favorable change. The onset of a psychosis and the rapid return to normal under such circumstances, places the psychiatrist in a delicate position and subjects him to the liability of considerable adverse criticism. At least some of the latter which surrounds the medical expert has resulted from a lack of appreciation of the existence of such psychotic conditions and the difficulties attendant thereon.

But some writers go so far as to state that simulation itself is an indication of mental disturbance, and it is certainly an abnormal method of meeting with difficulty. In this connection Kraepelin's statement in 1909 is apropos, *i. e.*, "as time passes, I have grown more and more conservative as to pure simulation, and I have seen a large number of my former simulators later become demented." It is generally true that fewer cases of suspected malingering are reported with the improving knowledge of psychiatry.

Moreover, malingering itself is simply often, if not always, a "defense reaction," and as such is allied to the psychoses, representing merely the effort of the individual to escape difficulty, an inadequate reaction to environment.

Illustrating the problems connected with the study of a condition manifesting some of the peculiar features of a prison psychosis, the following case history is presented.

The physical examination was conducted by Dr. C. A. West of the staff of the State Hospital for Insane, Columbia, S. C. Many of the observations were made in the company of Dr. J. Heyward Gibbes of Columbia, S. C., who was consulted by the prosecutor before the patient was transferred to the state hospital.

"X" is a white man, born in S. C. Age 38, married. Superintendent of an orphanage.

Family History.—The only evidence of insanity, nervous disease or other peculiarity in the family was the statement of the patient's father that the

paternal grandfather had a fever and was queer for two or three years at about the age of 65.

He kept talking about a hog his son had bought, saying more or less constantly, "Seventeen dollars and twenty-one cents." His brother took him to the mountains where he "was put under a water spout and he immediately recovered."

Personal History.—The patient was the second child. His early development and childhood are said to have been normal. He began school at the average age and attended college two years, making his own way.

He was married about 13 years ago and has had one child, a girl now about nine years old. His married life is said to have been happy, but since he has become involved in difficulties, there has been a separation.

In disposition, he was friendly, sociable and affectionate. He made friends readily and was in a way a leader. He evinced considerable interest in religion, being a Baptist and having been a Sunday-school superintendent before he was 18 years old. He abstained from alcohol, tobacco and habit-forming drugs.

His usual occupation was farming, but he had been lately the superintendent of an orphanage conducted by a secret order. His father states that he had at one time planned to study medicine. He apparently showed laudable ambition, making his own way under difficulties.

Events Leading to Present Difficulty.—The patient had been in charge of the orphanage for about four years, occupying an honorable and influential place in the community. So far as the general public knew he was an exemplary citizen until one of the female inmates became pregnant, and, in the resulting investigation, it was learned that he had been having sexual relations for some time with a number of young girls. This revelation greatly aroused the feeling of the community, and he was arrested on May 30, 1912, being charged with rape, in South Carolina a capital crime.

While awaiting trial, he made his escape from the jail, perhaps through the assistance of outside parties. For a time his whereabouts remained unascertained although a reward had been offered for his apprehension. After some months, however, he was recognized by an acquaintance while attending church in Baltimore, the authorities notified, and in September, 1912, he was returned to South Carolina, where his trial took place in October of the same year. Upon his conviction he was sentenced to be electrocuted on December 20, 1912, being taken to the penitentiary and confined in the death house on October 27, 1912.

During the trial, his demeanor, from all accounts, appears to have been normal. He answered all question frankly and clearly, admitting his criminal acts, defending his wife from the imputation that she knew of his practises, and assuming all responsibility. Towards the close of his trial he made a personal appeal to the sympathies of the jury, well expressed, full of religious sentiment and stated to have been eloquently presented, apparently skillfully calculated to play upon their feelings.

Onset of Peculiarities (over one year before admission.)—Upon his arrival at the penitentiary and for some two years or more thereafter, he

conducted himself, according to most informants, in a normal manner. One or two persons who observed him thought that he did not appear to appreciate the enormity of his crime. At any rate, he spent much of his time writing letters of instruction to his lawyers in regard to the appeal of his case. Later on, however, informants state he also began to write incoherent letters to the prison officials asking for various supplies and making complaints, showing considerable judgment defect. At the same time he wrote able letters to his lawyers. Still later, he got a basket of books with some yarn and appeared to be pretending the yarns were his pupils, teaching them, although still writing the letters to his lawyers.

About a year before admission he became mute, and after a trip to court for the purpose of being resentenced, he became negativistic, but continued to feed himself and was tidy, being taken to stool by another prisoner, until October, 1915. Dr. Gibbes had been observing him and had left orders that he should be let alone for ten days in an effort to arouse spontaneous action or break through the mutism. During that time (and since then until very recently) he had to be fed regularly and he constantly soiled himself, making no effort to care for himself.

It appears that the officials in charge, his fellow prisoners and physicians who observed him, quite generally regarded him as a malingerer, and many efforts were made to demonstrate this without success. Insanity being alleged by the defense, however, he was finally sent for an indefinite period to the state hospital for a thorough examination and close observation, being admitted on March 28, 1916.

Upon admission, he walked into the hospital in a peculiar, stiff manner, being assisted by the officers who accompanied him.

Physical Examination.—He would not cooperate in the physical examination and those parts requiring his assistance were exceedingly unsatisfactory. He was an undersized white man, height 4 feet 5 inches, weight 85 pounds. His hands and feet were very small. There were, however, no distinct malformations.

There was no evidence of an acute or chronic constitutional disorder except some enlargement of cervical and inguinal glands.

The pupils were normal in appearance and in reaction to light and accommodation.

There seemed to be a general anæsthesia to pain and temperature senses except that he showed after a time that he was uncomfortable when heat application or pin pricks were persisted in.

There were no vasomotor or trophic disturbances except some cyanosis of extremities.

Motor functions were not markedly altered except gait. He stood with feet wide spread apart, swaying from front to back, and when walking (usually only when led by the arm) he moved his legs in an awkward, stiff-kneed motion, not typically spastic.

The deep reflexes were about normal.

He apparently had no control over bladder or rectum.

Examination of chest and abdomen showed no abnormality.

He would not feed himself, but apparently had a fair appetite, eating when food was carried to his mouth.

The urinalysis, blood serum and spinal-fluid Wassermann, spinal-fluid Globulin reaction and cell count were all negative.

Mental Status.—For about a year the patient remained the same as on admission. He was placed in bed and kept under constant observation. He would lie quietly in bed, usually on his right side in a huddled-up way, arms and hands partially covering head, eyelids almost closed as if covertly watching surroundings. When aroused, as by shaking him by the arm, raising the eyelids or some other act in an endeavor to get his attention, he would sit up in an awkward way, eyelids still almost closed, and putting his hands in front of him begin to go through a peculiar movement, bringing the fingers together with a slight rubbing motion. He would keep this up for an indefinite period, if his hands were held making a strong resistive effort to resume it. If his supra-orbital nerves were pressed upon, his head percussed or something else done which seemed to cause him annoyance, he would raise a hand in a machine-like, wax-figure way and brush away examiner's hand, again going through the stereotyped movements. He would not talk or show by any outward sign that he heard or understood what was said in his presence. He soiled himself, never using a vessel which was within reach, on one or two occasions, however, getting up and urinating on the floor. He would not assist himself in eating, although a tray was often left with him. The attendant would have to place the food to his lips, when he would grab it with both hands, stuffing it in his mouth and eating in a voracious manner. In drinking, he would grab the cup in both hands after it was placed to his lips, and, biting at the cup, quickly empty it of its contents. It was never necessary to tube feed or force feed in the ordinary sense.

When put on his feet on the floor, he stood with legs wide apart, swaying unsteadily. He would not take a step unless led or pushed forward when he would suddenly start, walking a few steps in a stiff-kneed way acting as if about to fall and finally leaning up against the wall or bed when he would resume the same stereotyped movements. He would continue to keep his head bowed and his eyelids partially closed. He never showed even a tendency to retain saliva.

When lying in bed, he assumed a not unnatural and comfortable position. On one occasion, when observed without his knowledge, he was seen to raise himself up on one elbow and look about with his eyes open in a rather natural way, but although watched carefully at different times he never otherwise changed from the demeanor already described.

Being under sentence of death and merely at the hospital for observation, every effort was made to demonstrate the presence or absence of malingering. The administration of an anæsthetic, the production of intoxication, the application of electricity and other means failed utterly to break through the mutism or to alter his general attitude.

The visits of his father and former acquaintances, and conversations about his case or his family in his presence did not alter his pulse rate or otherwise indicate that his attention had been gained.

For just a year, he continued essentially as described, the only change being that he seemed less inclined to make the stereotyped motions but rather preferred to lie quietly in bed. A recurrent manic patient on the same ward went to his room upon several occasions and in loud, boisterous tones told him that he had nothing more to fear, his sentence had been commuted and he was now in a hospital for the insane. At the same time, he (the manic patient) put him through vigorous motions, twisting about his head and extremities. Whether or not this had any bearing on the subsequent events, he began to talk and pay attention to conversation and his environment on March 27, 1917.

In appearance, he now seemed dazed, confused, talking in short sentences and as if figuratively speaking. His first words were, "I am alive. I was dead in that sea." He called the place a hospital, but added, "A ship." They left me behind that rock. The horses were running away." Asked if he remembered coming to the hospital, he said, "It's all dark on the field. I waked up. I am alive. I waked up. I don't know when it started—on that battlefield—behind that rock when they ran over me." He talked slowly and in short sentences as if reflecting or unravelling a hazy mystery. After being silent for some time, he said spontaneously, "I am not dead;" and later, "I saw myself in the bottom of the sea; I don't know how I got here." He knew his name. He said his wife was dead. When asked about being in prison, he said, "Prison—I—was—in prison. That was before the war. That's dark."

When told to stand up, he at first said he could not, but when urged to do so he stood in the same unsteady way with legs wide apart. He said, "I don't want to fall. World shakes. I can walk. Shakes." When asked directly if he had been connected with an orphanage and if he had assaulted a child he said, "That was on the other side." When asked his age, he said, "I'm not old. I was just 15 when the war broke out."

Following this, he has gradually improved in personal appearance, has become tidy, dresses and feeds himself. He has learned the names of those with whom he is constantly associated and seems to be taking in his environment. He still talks as if coming out of a dream or trance-like state and has said that he felt "weird, stupid and dreamy." He said, "If I could just get loose from it, I could feel the world was a reality. It seems like a dream. I don't know how many brothers I had. I can see them in a group. They are veiled, however—a little more than shadows in my mind."

Asked how old he was when married, he replied, "I might have been 25 years old. I can't tell exactly. I can't get time straightened out. It seems strange; I try to live in the present. It draws me when I try to get back and fill them up. It may come."

As if soliloquizing, he said, "I think I would know them if I should see them. My wife—my wife—her name was Ella." (as if the name just occurred to him.)

Asked if he had a child, he replied, "Yes," but as to whether a boy or girl, "I am uncertain, only one—a baby—I can't recall. Now I know. Her name is Ruth. That's her name. I have been trying to think—and my

wife's name is Ella. Just one child, I think. A little girl. Ruth is her name. I feel certain. I've been trying to think of them."

He has been reading his Bible, being especially interested in the Psalms. When asked if he wanted the papers, he said, "No. They would not interest me. I have my Bible. I want to read it. I can't read much. It is very painful. I soon come across a word I can't recall. I want to get my mind to working."

He spoke about not having any emotions, and wondered at this because he was not dead.

When asked if he ever heard voices, he said, "Sometimes, but not as bad as they were. They are not distinct—like waters roaring. They are all distant—talking through water. They are not talking to me. They are all mixed up."

On May 18, he showed the same general characteristics. When asked about events in his past life, such as the dates of his birth and marriage, he claimed that he was unable to recall these. He said, "Some things seem to stand in a general way. I am close to them but I can't get them. It worries me. It draws me. I don't think it is good for me to look at them. It is painful at times to try to hunt them up. I don't know when the darkness came upon me. There is no place I can tell. There is not a single place that I can say, 'This is the last thing I can remember.' I know when I came to. I saw light that morning. I remember when I waked up. I heard a noise as if going through space or a whirr as if speeding through water. Then I opened my eyes."

He was approximately oriented. He knew the name and nature of the place. At first he said he did not know the name of the state but later on recalled it. He said the present month was April. Could not give the year.

He could not recall the name of the President of the United States or the governor of the state. He knew nothing of current events.

He recalled a few historical facts. For instance, he knew Columbus discovered America. In the conversation about this point he spontaneously said, "1066." Asked what he meant, he said, "That date came to me. Something about the French. No, it was England."

He apparently had lost his calculating ability to a certain degree.

$$\begin{array}{lll} 6 \times 8 = 32 & 4 \times 3 = 24 & 2 \times 4 = 8 \\ 3 \times 4 = "16\text{—no, it is twelve."} \end{array}$$

He showed a certain amount of insight. He recognized the mental abnormalities of those about him. In discussing these, he said, "They are not affected as I am. They are restless, moving about."

Questioned about his life at the orphanage, his arrest, trial and so forth, he again stated he recalled very little. He admitted remembering having held a position at an orphanage and some trouble with the little girls, but he said it was all hazy and indistinct.

At the time of the last interview, he still had the staring expression but less marked. There was anaesthesia of the pharynx; otherwise physical condition being apparently normal.

Summary.—Before commenting further upon this case and endeavoring to draw any definite conclusions, the salient features will be emphasized in a brief recapitulation.

Presenting no well-defined nervous or mental heredity, with an apparently normal early life, married, successful under disadvantages, respected and to a degree influential, the patient, at the age 35, was found to have been having sexual relations with young girls, inmates of the orphanage of which he was the superintendent. While awaiting trial, he escaped, being finally apprehended in Baltimore, where, it is alleged, he attended medical lectures for a short time. At his trial, he admitted his fault, made a strong personal plea to the jury and later advised with his lawyers in regard to an appeal. Being finally convicted and sentenced to death, he first began to write occasional incoherent letters, then to collect books and yarns, apparently regarding the latter as pupils he was teaching. He continued to write able letters during the early part of this change in demeanor. About a year before admission, he became mute, and negativistic and later on had to be fed. He also became indifferent as to personal habits, regularly soiling himself. In this condition, he was placed in the state hospital under observation. The physical examination was practically negative. Mentally, besides the above characteristics, he showed peculiar mannerisms, fumbling with his hands, standing with legs wide apart, walking if led with a stiff-kneed wax-figure-like gait, eating only if food was placed to his lips and then grabbing it and stuffing it in his mouth in a voracious manner. After a continuation of these symptoms with no perceptible change for a year, he suddenly began to talk, became tidy, dressing and feeding himself, and began to show interest in his surroundings. His conversation and facial expression seemed to indicate confusion and uncertainty, and there seemed to be amnesia for much that had occurred since his arrest and general loss of memory. He now seems to be gradually regaining the latter, but is disinclined to talk or think of the past, saying it is painful. He states that he has heard voices, "distant as if through waters;" also that the world seemed unreal and everything shadowy. Physical condition apparently normal aside from anæsthesia of pharynx.

Comment.—The mode of onset, to judge from the statement of others, would seem in a way to speak for simulation. While ad-

vising with his lawyers and writing to them letters of instruction which showed no evidence of mental abnormality, he sent at the same time incoherent and foolish letters to the prison authorities. (Statement from latter.) The collecting of books and yarns and teaching the latter, as reported by informants, do not resemble the characteristics of a typical psychosis. Neither are the mutism and resistiveness coupled with such usual symptoms that a diagnosis may be made. On the contrary, the peculiar voracious mode of eating when food is placed to his lips, the stiff gait with legs wide-spread, the fumbling with the fingers, make it difficult to reach a satisfactory conclusion.

A discussion of the content of his ideas, as shown by his conversation, of probable psychoanalytic significance and interest, will not be entered into.

The persistence of the mutism and generally peculiar attitude in spite of all effort to break through the same led the writer finally to report that the man was insane, the condition being allied to dementia præcox. Upon the strength of this it was decreed by the court that the patient be held at the hospital for an indefinite period or until he became normal mentally. This diagnosis was made with the full realization that the symptoms might disappear upon a change of environment or improvement in his legal status. Since then, the marked improvement and apparent gradual approximation towards the normal have not, in the writer's opinion, made necessary a revision of this diagnosis. The hysterical-like amnesia (associated also with symptoms resembling the Ganser syndrome) with a suggestible anæsthesia of the pharynx is not incompatible with a psychosis of the præcox variety, and the mechanism must be considered a defense against disagreeable reality.

Even if the condition began as malingering, it is a question, having continued so long in such an unnatural attitude, whether or not he could "come back" and resume his former status.

Whatever the outcome, many of the symptoms and the course resemble a "prison psychosis," so much so that the writer feels fully justified in giving the prisoner the benefit of the doubt.

The case is of further interest as to the ultimate outcome, when the question of final disposition may arise should he reach an apparently normal mental state.

DISCUSSION.

DR. CARLOS MACDONALD.—Mr. President, as the hour is so late, and we are so near the close of the session, I shall be very brief in the few remarks I desire to submit in the discussion of Dr. Sandy's paper.

One of the popular delusions of the day, if I may so term it, is that the plea of insanity—the so-called "insanity dodge"—is frequently successfully used in the defense of sane criminals. While it is true that a trumped-up defense of insanity is frequently offered in criminal cases, especially in those in which there appears to be no other avenue of escape, the fact is that a dishonest plea of insanity very rarely succeeds. During an experience of nearly 40 years in the observation of such cases, I have personally known but two instances in which a sane criminal escaped conviction on the plea of insanity.

As to whether a lawyer is ever justified in defending a criminal on the ground of insanity when he knows said criminal is perfectly sane is an ethical question which may properly be left to the legal profession—though I venture to say that lawyers have been disbarred for offenses of lesser gravity than that.

Superintendents of institutions for the criminal insane are agreed that very few criminals are wrongfully adjudged insane and committed to their institutions. This accords with my own experience of nearly 13 years as superintendent of the hospital for insane criminals in the state of New York. On the other hand, it is undoubtedly true that 10 insane persons are convicted and sent to prison to one sane criminal who escapes punishment on the plea of insanity.

It is a prevalent notion that it is an easy matter to simulate or feign insanity successfully. The fact is that one could scarcely undertake a more difficult rôle.

To succeed in shamming insanity, so as to deceive a skilled observer, one would require not only to be a consummate actor, but to be well versed in the symptoms of the different forms of mental disease, and to possess unusual powers of endurance. The average criminal, being entirely ignorant of the symptoms of insanity, usually over-acts his part and fails to present a consistent clinical picture of any form of that disease. The "symptoms" he presents to the eye of an experienced alienist are usually a medley of symptoms in which he mixes up the various forms of insanity indiscriminately. Furthermore, his "symptoms" subside as a rule, when he believes he is not under observation. Also the symptoms are apt to become more active as the time of trial approaches. I have no hesitancy in saying that it is practically impossible to simulate insanity so as to deceive a skilled observer, provided the latter has sufficient opportunity to observe and test the case.

OCCUPATIONAL AND INDUSTRIAL THERAPY. HOW
CAN THIS IMPORTANT BRANCH OF TREATMENT
OF OUR MENTALLY ILL BE EXTENDED AND
IMPROVED? *

By L. VERNON BRIGGS, M. D.,

*Member of the State Board of Insanity of Massachusetts 1913, and
Secretary 1914, 1915, and 1916.*

In picking up the history of occupational work in our institutions for the insane, I have found nothing in medical literature that would even touch the researches of Dr. Hurd on the subject in his most complete and truly remarkable history of "The Institutional Care of the Insane in the United States and Canada." I confess to having abstracted bodily from this volume much of the historical matter used in this paper.

As early as 1847, Dr. Amariah Brigham, superintendent of the Utica Asylum, published a paper on "The Moral Treatment of Insanity," in which he took issue with Dr. Rush's then prevailing views on the treatment of the insane. The latter says, for instance, that "the first object of the physician when he enters the cell or chamber of the average person should be to catch his eye and look him out of countenance. He should hear with silence their rudeness or witty answers to his questions, and upon no account ever laugh with them or at them." After enumerating the various means of making insane persons obedient, Rush continues: "If these prove ineffectual to establish a government over deranged persons, recourse should be had to certain modes of coercion." Among the methods recommended are the straight-waistcoat, the tranquillizing chair, the deprivation of customary pleasant food and pouring cold water under the coat so that it may descend to the armpits. If these methods likewise failed to produce the desired effect, he regarded it as "proper to resort to the fear of death."

With these views of Dr. Rush's Brigham entirely disagrees. He regarded bodily labor as one of the measures necessary for the moral treatment of the insane, and he expressed the hope

* Read at the seventy-third annual meeting of the American Medico-Psychological Association, New York, May 29-June 1, 1917.

"that in the future arrangements will be made by which the inmates of insane institutions will be better able to avail themselves of this means of cure." He recommended in 1847 that every institution should have a farm connected with it, and that there should be workshops where "dressmaking, tailoring, basket-making, shoemaking, painting, printing, book-binding and other employments should be carried on by patients who could not be employed on the farm." Manual labor he considered beneficial because it engages the attention and directs the mind to new objects of thought, but feared that in some instances, especially in convalescence from acute diseases, it might do harm and produce mental excitement. He believed that manual labor was most useful with incurable patients, since by preserving the health and arresting the tendency to mental impairment, it rendered their condition more comfortable. With curable patients, on the other hand, he considered mental occupation more beneficial, especially employing the mind in pursuits which engaged the attention, suggested new objects of thought and enlarged and improved both the mental and moral powers.

Institutions, he thought, should be supplied with books, maps, scientific apparatus and collections in natural history. Schools should be established in every institution where patients could learn reading, writing, drawing, music, arithmetic, geography, history, philosophy and the natural sciences. These schools should be in charge of intelligent instructors who would give all their time to the patients, eating at the same table with them, joining in their walks and recreations, providing them with amusement, and undertaking no labor or duty except that of interesting those under their care, and contributing to their happiness by conversation and companionship. They ought not to have anything to do with coercive measures, in order that the patients should not be prejudiced against them and become ill at ease in their presence. They should encourage the timid, comfort the despondent, and contribute to the cheerfulness and contentment of all. He believed that schools are especially useful in arousing the patients and calling into exercise the faculties of the mind which had become dormant and inactive. While walking, riding, etc., soon became mechanical, and therefore furnished but limited enjoyment, attend-

ing school, he believed, provided mental occupation which, by requiring constant attention and effort, really interested the patient. Dr. Hurd says: "It is evident that Brigham, in this respect, was far in advance of his time, and possibly of any time."

How far have we carried out these ideas, and have we really made any further progress?

In the first number of the *AMERICAN JOURNAL OF INSANITY*, the good Dr. Brigham describes efforts made to employ patients in the State Lunatic Asylum at Utica, N. Y., which certainly seem, in some respects, to be far in advance of anything our hospitals are doing now. He says: "Attached to the asylum at Utica is an excellent farm, where the patients in good weather perform much labor, and also in the garden, by all of which they are much gratified and improved. Some work in the joiners' shops, some make and repair mattresses, and others work at making and mending shoes. The women make clothing and bedding, and do the ironing and assist in various household duties. They also manufacture many useful fancy articles for sale." He goes on to describe a fair that had been held a month before for the sale of articles manufactured by patients at the asylum, and quotes a passage from an article in a daily newspaper showing how everyone was surprised at the beauty of the fabrics, and the skill and ingenuity displayed in their manufacture. There were dolls of every dimension, baskets, caps, stockings, gloves, aprons, collars, bags, purses, etc., in abundance. Schools for both sexes had been established, at which good results had been obtained. The winter session of the school had been closed by an exhibition at which there had been given original pieces, recitations, music and original plays, which would not have been discreditable to any literary institution.

"Those who do not labor," says Dr. Brigham, "pass their time reading, playing ball, rolling ninepins, walking or attending school. The women work much of the time; they also take drives, walk, play battledore and attend school."

In the next number of the *JOURNAL* he gives a description of the school: "There are three schools for men, one managed wholly by a patient, the other two by a teacher hired for the purpose, and one school for women conducted by a hired teacher. School

sessions commence at ten in the morning and at three in the afternoon, and each session continues for one hour. They are opened and closed by the singing of a hymn. The patients read, spell, answer questions in arithmetic, geography and history, and are assisted by blackboards and a globe. The majority commit pieces to memory, and once a week there is a meeting of all the schools in the chapel, where they unite in singing, which is followed by declamations, reading and compositions. Some patients have learned to read and write in these schools. Several who have been depressed have been much improved by attending school, and a considerable number who were approaching a demented state have been improved in mind and have become interested in learning."

In a later article Dr. Bingham describes what he calls "whittling schools," in which, "in addition to carved reproductions of all ordinary objects, such as houses, temples, ships, chains, etc., as well as all four-footed, two-legged and creeping things, there are many works of pure imagination, presenting marked characteristics of the *asylum school*!"

Dr. Hurd continues in his account of Dr. Brigham's work: "The theory held by Dr. Brigham and also by Dr. Todd of Hartford was that employment, to be of benefit to the patient, should not consider the question of gainful occupation. In their opinions it should be of a character to divert the patient from his morbid fancies, to engage his attention, stimulate his interest, and lead him to resume natural and healthy methods of thought and occupation. Hence Dr. Brigham advocated the establishment of the whittling shop mentioned above, and also made plans for a printing office and other industries in connection with his institution. He spoke repeatedly of the advantage of household occupations and gardening and flower raising for women, with labor upon the farm and garden for men. It will be observed that these schools were part of the hospital routine. As long as Dr. Brigham was superintendent, and during the superintendency of Dr. Benedict, his successor, they continued in operation. Under Dr. John P. Gray they were discontinued." Except for the addition of gymnastics, dancing, etc., and for the development of the more strictly artistic handicrafts, little seems to have been devised in any state

hospitals in this country since Dr. Brigham's day in the way of diverting and occupying patients. Indeed we might do well to revive several of his devices, especially the well-conducted school and whittling classes. Considering that our hospitals are necessarily under the direction of medical men, it is not surprising that the pedagogic side of the treatment has been neglected; but with our wider present-day knowledge of abnormal psychology it must come once more to the fore. It is true that our medical men are not trained to conduct schools, nor have we, many of us, the scientific knowledge of occupational therapeutics. Why not put these matters in the hands of trained educators, under medical direction? It may even be possible in course of time to effect cooperation with boards of education along these lines.

In the meantime, some sort of occupational work is being done in all of our state hospitals, but the various branches of instruction are best carried on where the superintendent or one of his assistants has some particular hobby. Even the school idea is by no means neglected. Dr. Eyman, of the Massillon State Hospital (Ohio) is quoted in Dr. Hurd's book as saying that, "During the past year (1915) a school has been in session at this hospital. Through private donation a sum of money was obtained to purchase the material, and under the direction of the superintendent, the work of construction was practically done by the patients." He then describes the building, and continues: "Two teachers are provided for the school, and about a hundred patients per day are in attendance. Three sessions are held daily, two for women and one for men. The subjects are oral arithmetic, reading and spelling. The patients, in addition, are encouraged to relate stories from their experience, bearing on whatever subject is under discussion. There are also spelling contests and special recitations and songs. Free-hand drawing and the study of German have been introduced and special classes in history and geography have been formed. It has been the aim of the superintendent of the hospital to make an appeal to the patients to recall and reproduce, as vividly as possible, their former school days, and to awaken and stimulate early associations, with the hope that the stream of thought may thus be brought back to a natural channel. An effort is made to vary the instruction and to give a sustained

interest in the exercises. The questions and subjects are simple in character and the patients are encouraged to speak of the ideas which the lessons suggest to them. The last 20 or 30 minutes of each session are given to calisthenics in the gymnasium, beginning with a simple march to music and followed by a simple gymnastic drill, with definite commands and without apparatus. At the close of the drill the patients join in old-fashioned games like drop the handkerchief, London Bridge and fox and geese.

"With the development of non-restraint methods it became essential to supplement household duties by occupations and industries calculated to engross the attention of all classes of patients, acute as well as chronic.

"In some states a law exists whereby authority is given to medical officers of institutions to give employment to patients solely as a mode of treatment."

From time to time periodicals have been issued by patients in various institutions, beginning in the Hartford Retreat as early as 1837. In 1847 a regular newspaper, *The Asylum Journal*, was issued by the patients of the Vermont Asylum for the Insane at Brattleboro. This continued successfully for five years, but was discontinued on account of the recovery and discharge of the printers. Perhaps the most successful of such periodicals was the *Opal*, issued from the Utica Asylum in the 50's. This paper had a large circulation and was very successful for some years, but gradually interest dwindled. We are told that the editor, the printer and the binder declined in mental power from the progress of disease and soon afterwards died. We may trust, however, that their deterioration was delayed by their activities. Dr. Hurd cites as one of the causes for the decline of this journal the recovery and discharge of some of the best contributors. He says in regard to these periodicals in general: "They prospered for a time owing to the industry and initiative of some one person who felt responsible for them, and ceased to exist when by recovery or otherwise the individual passed from the institution." Does not the very fact that these periodicals have been discontinued after a short period of enthusiasm indicate that they have accomplished their therapeutic purpose?

Therapeutic occupation for the mentally ill, and especially those who are patients in our state and private hospitals has not received

the impetus that it should, considering that it is a recognized value of almost the greatest importance in the treatment of mental diseases. While therapeutic occupation for the blind, crippled and other handicapped individuals has made enormous strides the last few years, this form of treatment has made comparatively little progress in our institutions for the mentally ill. We might learn much from a study of the methods of Dr. Herbert J. Hall, of Marblehead, who has done pioneer work in the development of occupation for non-mental cases. In a paper read by him in Boston, in 1914, in discussing the subject of special vocational schools for discharged patients from state hospitals, he says:

"It seems to me that we are not ready for outside industries, because we have not yet made full use of the hospital opportunities for industrial or vocational training. The modern state hospital is a little industrial world. Almost all the trades, all the domestic occupations are carried on under its administration." He then cites the various necessary occupations to which patients are already being admitted, with undoubted benefit to themselves and to the hospitals, and continues: "This is a most gratifying situation, but I will venture to predict that it is only a very small beginning. Very much credit is due to the hospital superintendents and their assistants for their accomplishments so far. With an especial force of industrial teachers, however, the labor of the patients could be much more efficiently used, with a greatly increased benefit both to the worker and to the state. It would be far too much to expect that with all their other duties the present nurses and assistants could find the right job for each patient and then get the best and the most efficient work accomplished. But here is a task which must be undertaken if we are to train our patients for successful life outside, or if we are to avail ourselves of the tremendous industrial possibilities latent in the wards of the state hospitals. Here is the opportunity for special industrial teachers—I do not mean teachers of arts and crafts, for the crafts are relatively a small matter and are being developed. I do mean teachers of high-grade, whose business will be to study the individual patient, with the idea of making him highly efficient, not only while he is in the hospital, but later, in any industry which may be managed after his discharge. We shall be much more likely to succeed with outside industries if we have made careful

vocational study of the individual, if we have tried him out and proved him under the protection of the institution."

I would heartily recommend Dr. Hall's books, written in conjunction with Miss Mertice M. C. Buck, entitled "The Work of Our Hands" and "Handicrafts for the Handicapped."

A comparison of statistics covering the work of a purely therapeutic nature done in a so-called up-to-date group of state hospitals two years ago with the work done at the present time shows very little increase in percentages of patients occupied. Ward work, including the care of rooms, kitchen and laundry, and farm work have increased, but this increase appears along the lines of industry and economics, rather than of therapeutics. Reports do not show that sufficient study is made of the therapeutic application of this work nor of its therapeutic results.

In how many of our state institutions in this country will you find more than a small percentage of the total number of patients being studied along the lines of vocational training and the determination of therapeutic occupation as a means of improvement or cure? To be sure there are classes in many of the hospitals where certain teachers instruct some patients in therapeutic occupation, but they constitute but a very small proportion of the total number of patients occupied in any hospital.

In the face of the recognized value of occupation as a remedial measure in this branch of medicine, and in the face of all that has been written on this subject both in the magazines and in medical publications, it is appalling to go through the institutions for the mentally ill and see the great number of patients who are now as idle as they might have been 50 years ago—many sitting on benches, others loafing about the grounds, and large numbers lying in bed day in and day out with nothing to do.

I know that it is a physical impossibility for superintendents and other members of the staff to set all of their patients to work at once, but every hospital should be so organized that there would be, in addition to expert teachers, a corps of instructors among the nurses and other employees who would in turn extend their knowledge to other nurses, and in addition they should be given a course in therapeutic occupation in the training schools, so that every graduate nurse would be able to carry out prescriptions written by the medical officer for this important branch of treat-

ment. With such a force in the hospital, the medical officers should either themselves or through the creation of a new office, *i. e.*, vocational trainer, preferably with medical education, to study the needs of every patient, that each one may have some occupation which will help in the treatment, to the end that they may not only be happier in the hospital, but, in many cases, less destructive, less depressed or less noisy, and, what is of great importance, if the patient is able to do something that is useful and of value as a therapeutic measure, he may continue the same occupation after his discharge.

Very often the mistake is made of laying too much stress upon the value of the product of labor of certain patients, because of their efficiency in certain directions before they came to the hospital. Too little attention is paid to the fact that in many instances it may have been that very occupation or employment which contributed to the breakdown; or, that the particular occupation or employment may be accompanied by ideas of environment or influence associated with the illness before coming to the hospital which it might be dangerous to revive. This, of course, is not always the fact, and it is not unusual to find that a patient is made much better by resuming his regular trade or occupation, especially if he finds he can do in the hospital what he was unable to do before coming there.

In hospitals where the percentage of occupation is high, restraint percentage is low, including seclusion and packs. In hospitals where the "open-door" treatment is in vogue, the percentage of restraint, seclusion and wet pack is extremely low or entirely wanting. For example, at Sykesville, with a thousand patients under the open-door system, there is no restraint.

Members of the staffs of our hospitals, either state or private, should not allow a day to pass without having started one or more patients who had previously been idle, according to the population of the hospital, in occupational work. If a patient is only able to do one hour's continuous work in one kind of occupation in one day, then other forms of occupation should be prescribed after the physician has made a study of the particular case.

Dr. Fernald, in the school for the feeble-minded, has never been satisfied with one hour a day for any patient, and shifts those not capable of continuous effort in one direction from one occupation

to another, until he has mastered the therapeutic needs of each of his patients along industrial or other occupational lines.

It would seem that enough has been written on the subject of this mode of treatment, but there evidently is something wanting, else our superintendents would not to-day have so many idle patients on their wards. The time has come when no superintendent should be satisfied with a table of occupations showing only six to twelve per cent who are really receiving occupational therapy, with 40 per cent or even 50 with industrial or economic occupation—many of them occupied only an hour or two hours a day, and with the other 30 or 40 per cent receiving little attention, if they are bed patients, or if violent or senile, only such attention as attendants are able to give them by walking them about for an hour or two in the whole 24 hours, and this walk confined to stereotyped paths or routes which occupy comparatively small space of the usually extensive grounds of the institution. Many patients in institutions of a thousand or more should be found who would make valuable teachers, and who would be able to do work under the direction of physicians which would in itself be a therapeutic measure for them, and there might be a certain percentage of these teachers who might continue in the work after recovery. I hope to live to see the day when the ex-patients of the hospital will not be barred from employment in a hospital for the mentally ill. If their treatment has been what it ought to be, if their training in occupational or industrial work has been what it ought to be, instead of being cast out of the door forever when they leave the institution as "improved" or "recovered," certain of them ought to be among the most valuable employees, able intelligently to carry out the instructions of the officers or other employees and to be of great service to their fellow-kind who have need of just the sort of sympathetic care and treatment that might be administered by these very persons under proper direction.

There are many professional teachers of therapeutic occupation now being developed for our general hospitals, and for our hospitals for the blind and crippled. It is not a credit to our alienists that we have allowed other branches of medicine to proceed so much more rapidly in this direction, with the compara-

tively small proportion of their cases needing this kind of therapeutics, than we have done when almost every individual case requires the most intelligent and judicious administration. We were by many years the first to start, and we should have been the first to develop this branch of therapeutics, and should long ago have been able to supply the needs of the small units requiring such teaching.

A careful study made last year by the Massachusetts State Board of Insanity of the working capacities of the state institutions under their care shows that they had on June 1, 1916 (exclusive of patients boarded out), a total of 17,683 patients, and that the working capacities of the institutions at that date could have provided employment of some sort for 16,456 patients, that is, that we could have occupied 92.54 per cent of our patients, given a maximum of efficiency. Allowing for the number of patients too feeble or too demented to work, this would at first glance seem to be an adequate provision.

As to the use made of this provision, we find that on the same date there were actually occupied, for some fraction of the day, 13,016 patients. According to these figures, and judging *only by figures*, we are 80 per cent efficient. But an analysis of the different types of work actually being done leads one to a very different conclusion.

Excluding the schools for the feeble-minded, Tewksbury and Bridgewater, because a comparison of their figures with those of the state hospitals is hardly fair, we find that on June 1, 72.66 per cent of all patients are reported as occupied. Again allowing for those incapacitated, this seems like a fair showing; but, bearing in mind that the object of occupation in a *hospital* is admittedly therapeutic, let us inquire how far this idea is being carried out.

It is impossible to separate the different classes of work in any such report as this so as to distinguish the strictly therapeutic work from the industrial or necessary work of the institution. Indeed there is no doubt that, with proper classification of workers and careful supervision, domestic and departmental work are very important branches of therapeutic treatment; but there is always the danger, especially under economic pressure and that of short-

sighted utilitarian public opinion, of relapsing into the old institutional habit of getting our work done along the lines of the least resistance without consideration of the individual patient's interest, allowing patients who are not helpful to the institution to relapse into habits of idleness which retard recovery in some and hasten deterioration in others; and on the other hand running the risk of overworking willing and industrious patients.

An analysis of the state hospital figures is interesting, though not conclusive. It is shown that an average of but 3.03 per cent of their population are occupied in shops and 8.94 per cent in the industrial rooms, making a total of 11.97 per cent of the patients in these more scientifically directed branches of occupation, under special trained teachers. We also find that many of these patients work but a very small part of the day—12.57 per cent work for one hour or less, and 29 per cent of all patients, or about 40 per cent of the total number occupied at all are occupied only in ward work, which one suspects is of very little practical value to the patient as at present organized. For instance an inquiry made by the State Board of Insanity last year to ascertain how many of the patients reported as occupied were merely engaged in swabbing and polishing floors showed that in the various institutions from 1.4 per cent to 14.4 per cent were reported as thus occupied. More or less of this class of work is done by patients in all state hospitals, but where it is the patient's sole employment, it can hardly be qualified as therapeutic, and in many instances it would seem to be dictated by laziness, ignorance or lack of initiative on the part of the nurse.

The Committee of Diversional Occupation of the American Medico-Psychological Association at Old Point Comfort in 1915 awarded "gold stars" to five Massachusetts hospitals on the following points:

1. Having a director of occupational work with assistant teachers.
2. More than 50 per cent of unwilling workers occupied.
3. Industrial work as part of training course for nurses.
4. Industrial Department as well as work on wards.

It is to be hoped that all of our hospitals are now fulfilling these outline requirements, though no just estimate of the efficiency of

the work can be made in this way. It is quality as well as quantity that counts for real success—we should not only ask how many patients are working, but how many patients are intelligently set to work for their own benefit.

Dr. Clara Barrus, in her most excellent text book "Nursing the Insane," published as long ago as 1908, has a most excellent chapter on occupations. She says: "Nurses need to remember that new patients should not be set to work until their occupation is sanctioned in kind and degree by the physician. I hope the time will soon come when, in addition to the various industrial shops in vogue in some hospitals, there will be regular schools, where the truths in kindergarten methods will be made applicable to patients; courses of instruction adapted to the needs of various classes and conditions will help in upbuilding mental health. I wish to emphasize the necessity for individualization in the choice of occupation, the particular work being suited to a given patient and to the patient's existing condition. Never allow him to jog along from day to day in work which, though it may have been suited to him at one time, is now for any reason no longer adapted to his strength. Patients should be encouraged first of all to do all that they can to help themselves and then to do something each day to help others.

"Up to about 1880 restraint was generally used in this country, leading to much criticism from visitors from abroad who were familiar with the non-restraint methods practiced in English institutions; and from 1850 to 1880 scarcely a meeting of the Association of Superintendents of Institutions for the Insane was held in which the matter was not debated. It was evident that the opinion of the majority of superintendents was in favor of restraint, though an occasional voice was lifted against it.

"Wherever non-restraint was adopted carefully and judiciously it promoted the comfort and well-being of the patient. But where non-restraint was simply decreed without any attempt to furnish a substitute for it, it was found that the relation between the patient and the nurse became extremely unpleasant. The nurse, forbidden to use mechanical restraint, sometimes resorted to force and intimidation, which resulted in personal collisions between the patient and his nurses. Not a few of the earlier attempts at

non-restraint failed because of this failure to devise occupation for the patients."

That there is a close connection between the absolute abolishment of restraint, the introduction of therapeutic occupations and the higher morale of the nursing force of any institution for the mentally ill is self-evident to any student of the situation. I believe that no efficient work can be done in any one of these branches without affecting the others favorably, and it seems to me that all three points may well be attacked at once.

The more the drudgery of custodial care is diminished and the interest of teaching substituted, the better class of caretakers we shall attract and the fewer we shall need. It has been demonstrated that patients occupied in interesting work need less supervision. We might, therefore, well afford to pay for the higher type of service demanded rather than for a large force of custodians. The resultant economy in the prevention and cure of insanity can never be reckoned in dollars and cents, but it must surely result in a much smaller ratio of increase in hospital population, to say nothing of turning out self-respecting men and women, rather than potential paupers.

I can most heartily recommend a recent book, "Occupation Therapy," by Dr. William Rush Dunton, of the Sheppard and Enoch Pratt Hospital. Dr. Dunton deprecates the informal way in which most hospitals permit their nurses to learn what they can of the occupation of patients merely through observation. He says it is practically impossible for a nurse to gain knowledge of basic principles under these circumstances, and recommends a lecture or two early in the training to open her eyes to this very important branch of her work. He says we must "study carefully to learn what form of occupation is most suitable for our patient, and if no specific directions have been given by the physician, it is the duty of the nurse to do this. The primary purpose of occupation should be to divert the patient's attention from unpleasant subjects, as in the case of one depressed. Or, in a case of dementia præcox, where the patient is given to day-dreaming or so-called mental rumination, occupation is given to direct the patient's train of thought into more healthy channels. In a case of mild excitement, occupation will keep the patient's mind more continuously on one subject than is possible if he has

not this stimulus to control his attention. In cases of marked excitement it is usually impossible to use occupation in treatment, which is usually directed toward securing rest; when convalescence is begun, occupation will be of value. In cases of dementia of various sorts the object may be to re-educate, to train the patient to develop the mental processes by educating the hands, eyes, muscles, etc., just as is done in developing the child. Another purpose of occupation may be to give the patient a hobby, which may serve as a safety valve and render the recurrence of an attack less likely. Still another purpose, which is less often resorted to, is to give the patient a means of livelihood after leaving the hospital, it being deemed wise to give up the former vocation." "The *mechanism* by which a recovery is brought about has been the subject of considerable inquiry. It may be summed up by the word *substitution* or, if one prefers, *replacement*." Dr. Dunton continues: "The question of rewards is one concerning which it is desirable to have some accurate information, which the nurses can often obtain better than anyone else. Do patients work with more interest if there is some prize offered? What form should this take—should it be some tangible trifle, or should it be the granting of a privilege? These are but few of the questions which have been asked, and which have not yet been answered authoritatively."

It seems to me that any generalization as to payment or reward for therapeutic occupation should depend entirely upon the needs of the individual patient. Ordinarily the occupation should be so attractive to the patient that it would be its own reward. The performance of tasks useful to the institution is quite another question, and one which has never, I think, been thrashed out from the economic standpoint.

Dr. Mary Lawson Neff, to whom the state of Massachusetts owes much for the first year's effort at the organization and systematic development of occupational work, takes the reasonable point of view that because the patient is a more or less efficient worker, the state has no right to require from him full-time services. She holds that the state may have a right to demand half of each day's work as payment for his maintenance (though even this is a mooted question), but that he should certainly have the privilege of working for the other half of the day at something from

which the benefit comes, directly or indirectly, to himself. Thus kitchen and laundry workers who work eight hours a day would be paid for half of each day's work, enabling them to continue contributing to the family support, even while in the institution, or to earn a little money for personal comforts not supplied by the hospital. But especially this idea of half a day's work would enable the hospital to give certain classes of working patients the benefit of vocational training for a part of each day or to give them time to benefit by purely diversional work or play. Such a plan might mean a temporary readjustment of the state's budget, but in the end it would tend to contribute to a greater efficiency in the work accomplished, to a larger number of cures, less discontent among the workers, and perhaps to less pauperism among the families of the patients, and a quicker readjustment to industrial conditions among recovered patients.

Dr. Dunton recommends that, "a record should be kept of the patient's attendance, manner of work, interest, etc., by the teacher of the particular class attended, and that these records should form a part of the patient's clinical history when discharged, as from them may be derived information of considerable value for the physician. It seems best that these should be in the form of frequent notes and comments, rather than a set form, as in the latter case much may be of interest is lost." He refers to examples given by Miss Field in her paper on "The Effect of Occupation Upon the Individual."

Dr. Neff's year of service in Massachusetts was full of interesting suggestions. Her first special undertaking was to develop an educational exhibit of patient's work. In this exhibition she included not only articles of interest in themselves, of which comparatively few were made at that time, but series of articles showing early and later attempts of patients, and some very pathetic things made from old bones, ravelings, bits of torn clothing, and waste material of all sorts, showing the desire of these people, even without encouragement or suitable material, to *make something* rather than sit all day idle, as was then the custom in some very *orderly* institutions. "The exhibits were selected for their educational value, in order to illustrate as far as practicable all the desirable activities that had actually been carried on in some institution. The articles were classified, labelled, mounted on

cards, in booklets, and in other suitable ways, and formed into a logically developed whole. This exhibit required a great deal of time and labor, but seems to have accomplished even more than was expected of it. It was visited by considerably more than 2000 hospital employees and visitors from outside the hospitals. About an equal number of patients were taken to see it. Representatives were sent to inspect the exhibit from the Russell Sage Foundation, from Clark University and from Wellesley College." The educational effects of this exhibition were widespread, and it is to be regretted that it was not preserved for its educational and historic interest, which were in many respects greater than the recent exhibits of more artistic and more efficiently organized shop-work, which we enjoy rather for their intrinsic merit than for their therapeutic interest. Unless the matter is continually kept before our eyes, there is great danger of our losing sight of the fact that the patient is our first consideration, and that his cure is of more importance, even from an economic point of view, than the product of his industry.

I would recommend to all doctors in state hospitals Dr. Eyman's paper on "Institutional Stasis," read before the Medico-Psychological Association at Old Point Comfort, in May, 1915; to be read at least once a year, that in spite of all discouragements, they may continue to bear in mind that no scientific work is final. Dr. Burgess, in discussing this paper, said: "Speaking from 40 years' experience, I can say that the greatest trouble is that we think of great improvements we could make if we had the money, but unfortunately the money is not always forthcoming. That, however, should not deter us. The aim of the hospital should be progress. The institution that stands still might as well be wiped out."

Dr. Henry P. Frost, of the Boston State Hospital, in a paper read at the same meeting, said that idleness certainly "breeds dementia and fosters the formation of untidy and destructive habits, as well as bad temper and violence. A program of occupation which stimulates the interest, replaces confusion with order and gloom with good cheer, contributes to the cure of many, and cuts down the cost of supervision and maintenance is well worth the effort involved in its establishment." He continues: "The

great value of occupation in the treatment of the insane is determined by its infinite variety, adaptable to innumerable individual tastes and capacities, its range from utmost simplicity to stimulating technical exaction, but above all its essential normality, constituting it, for these unfortunates, the natural passageway back to normal life. The diversional feature of the occupation needs to be emphasized in order to obtain the best therapeutic results."

After summing up the various ways in which the patient's work is of value to the institution, Dr. Frost adds: "A further very distinct benefit to the administration is to be noted in the better spirit which pervades the nursing staff when a régime of definite and interesting duties in connection with the industrial program replaces the drear routine of lolling and keeping an eye on a ward full of restless, unhappy, dull and dirty dements." In giving the history of the development of this work in the Boston State Hospital, Dr. Frost adds: "After some success had been obtained in developing the interest and co-operation of the nursing staff and the more intelligent and willing patients, special attention was given to the training of the least intelligent class and to the introduction of safe and suitable occupations in the ward treatment of those with violent and dangerous tendencies, for it was felt that these were the larger and more important fields for really effective work."

In another very interesting and suggestive paper read at this conference, Dr. Britton D. Evans, of the New Jersey State Hospital at Morris Plains, and his assistant, Dr. Frank M. Mikels, say: "The form of work assigned should be consistent with therapeutic indications in each psychosis, the reactive effects should be carefully evaluated by a physician, conversant with the régime of treatment—it should not be left to the haphazard judgment of untrained nurses and attendants. Before work is assigned a careful study should be made of the peculiar complexes of each psychosis, in order that the work prescribed will not militate against the improvement of the patient's mental condition. There is no system so vicious as that which relegates a patient with mental disease to the solitude of a custodial institution, and totally disregards the residual earning capacity of that individual." Again these authors say: "There are instances where the pre-

scription of a certain kind of work to allay the distressing symptoms of a psychosis will actually entail a waste of material, but there is a compensation for this loss if the prescription of work takes the place of administering drugs, and ultimately there is an actual profit, if the patient eventually becomes a producer of articles which have a greater value than the loss of the materials which he used." . . . "The value of this method of treatment is in direct ratio to the efficiency of the physicians and instructors, and their personal interest in this form of therapy."

Dr. Floyd Haviland advocates the systematization and organization of occupational and re-educational work through occupational schedules. He says that the best results from an occupation schedule are obtained when all work done in an institution is covered by it. "The ideal general schedule, however, not only provides for work done by patients, but also provides scheduled periods for rest, recreation and exercise."

Dr. Charles E. Thompson, of the Gardiner State Colony says: "The superintendent must have enthusiastic instructors in order to get results. It seems to me that this is the important thing—to stimulate rather than pay patients for work done."

One might continue quoting indefinitely from recognized authorities on this subject. The remarkable facts are that all are agreed as to its importance, and that all the forms of work and play suggested are in practical, successful operation in one or more of our state institutions. I should like to see a more thorough, systematic organization of this work in every state hospital; and especially I should like to see Dr. Brigham's school idea more generally revived in the light of modern educational knowledge.

Our state hospitals might well afford to maintain large "Educational Departments," under trained specialists, to which the majority of the patients should be referred as *pupils*, for mental, occupational and physical training, as prescribed by one or more experts in these lines. These departments should include not only our present occupational and industrial work, but should maintain school sessions, varied by physical culture, music, folk-dancing and other recreations, affording opportunities for the needs and tastes of each individual. Such work could not fail to be of extreme interest to the psychologist, and should furnish scientific material of great educational value.

DISCUSSION.

DR. RUSSELL.—Mr. President, Dr. Briggs has shown in his paper the value of occupation in mental treatment. Its value to patients suffering from mental disorders has been recognized since the beginning of systematic effort to treat them. We do not, therefore, have to concern ourselves with anything except methods and these have been vastly improved. I think that the foundation for intelligent methods in an institution must be the study of the patient, and it should be understood that the efforts that have been made to improve the study of the patients in the institution have a therapeutic object when it comes to the application of occupations and all kinds of activities in their treatment. In connection with this I would direct attention to a chart to be found in the Bloomingdale exhibit in the special room for institutional exhibits. It is not very conspicuous and may escape notice. It is an effort made by Dr. Lambert to devise a graphic method of informing the nurses or the instructors in occupation in regard to the particular traits of the patient that are to be dealt with. It is an attempt at greater precision in applying occupational therapeutics. You will note that long and short bars are used to indicate traits which require encouragement or repression. The charts are recast at intervals for the guidance and encouragement of the instructors, and of course to a considerable extent must be drawn for each patient.

This chart seems to me to be a contribution to the more precise methods which are needed. It is not a finished product, but is a start which I hope will lead to further work in the same direction.

DR. WOODSON.—Mr. President, some years ago when I was young in hospital work it occurred to me that the best results in this line would be obtained from furnishing congenial employment to our patients encouraging them in caring for the fruits grown on the institution grounds. Our earliest crop was strawberries, and taking these up by the patients occupied two or three weeks, then came the raspberries and in large quantities, then the blackberries. And early in my institutional life I planted out a fairly large orchard of all kinds of fruits in order that the patients might have the fruit and have continued activities; also we had cherries, grapes, melons, peaches, and when our patients were taken out, they wanted to work in the berry patches, they wanted to eat them on the wards, wanted to have the privilege of eating as well as gathering them. Baskets were sent and filled with grapes, berries, apples or peaches, and this furnished not only congenial employment but it furnished efficient aid in gathering the fruits. It was beneficial to the patients, as it gave them the most wholesome food, and one of the ways to have an abundance of fruit was to help raise it; and they thoroughly enjoyed being permitted to raise it. Another part of the institution farm was given to potatoes, another part to peaches, pears and apples. The industrial and manufacturing business they did not take much interest in. It is true they worked at it but they seemed to regard it as a task, in which there was neither entertainment nor congeniality. The man who has a trade does not care about working at it especially in an institution.

There are many men who are now preparing to give employment of this character to their patients and the different lines will furnish varied opportunities. These employments should be under the direction of horticulturists and agriculturists to direct them. The superintendent may direct them but he has no time to oversee anything but the distinct results in the way of improvement coming from his working patients; and if he is wise he will let his patients do in these various lines what they want to do and from this they will derive a large amount of pleasure and improvement, more indeed than through any other recreation or employment whatever.

DR. BRIGGS.—Mr. President, the object of my paper was not so much instructive as to again bring before the Association what had been done, what is now being done, and to try to stimulate still further the occupational work in a scientific way through the medical heads and specially by appointed instructors and vocational workers. I think occupation should be carried out to the fullest extent and we should not see these latent forces wasted; that the value of this therapeutic agency should be constantly inculcated for full benefit cannot now be achieved without occupation and industry scientifically prescribed.

Notes and Comment.

DEATH OF DR. JOHN B. CHAPIN.—Just as the JOURNAL is about to go to press the sad news reaches us of the death of Dr. Chapin at his home in Canandaigua, N. Y., on Thursday afternoon, January 17, 1918. Dr. Chapin has been for many years regarded as the Nestor of American psychiatry. He completed his 88th year on December 4, 1917. In 1904, in Philadelphia, at the head of the department for the insane of the Pennsylvania Hospital, he rounded out 50 years of service in hospitals for mental disorders, and a dinner given in his honor on December 1 of that year was attended by a noteworthy gathering of his friends.

For seven years longer he continued at the head of the hospital over which he had presided since 1884, retiring in the summer of 1911 and removing to Canandaigua, N. Y.

On May 31 last, in response to a telegram sent by the American Medico-Psychological Association at its 73d annual session, congratulating him on completing 50 years of membership in that body, he expressed his thanks for the telegram and referred to the changes in the care of the insane he had witnessed since attending as a visitor the meeting of the Association in New York in 1852.

Time does not permit an extended sketch of Dr. Chapin's career, nor an adequate estimate of his character and achievements. A more extended notice will appear in the April number of the JOURNAL.

To the writer the news of Dr. Chapin's death causes a grief which cannot be expressed; his departure creates a void which can never be filled.

THE WAR. WHAT ARE ITS AIMS?—Questions of politics, great problems of national and international policy are seldom, if ever, discussed in the pages of a scientific periodical. Editors of such publications are rarely either by training or inclination in a position to speak with authority or force upon such matters.

The great war which to-day convulses the world, which has interfered with all of the common activities of human life and which is engrossing the minds of all thinking men and women to the exclusion of almost every other interest, seems to us of such paramount human import that it deserves some passing note in these pages.

The causes of the great conflict are not far to seek, and history will most certainly pillory before posterity those who, by reason of an o'erweening ambition for world-power, prepared for and brought on the conflict.

The United States profoundly affected from the outset, with ample and justifiable causes for taking part, its people strongly in sympathy with the Allies by a large majority, held aloof for a long time and endeavored to maintain a strict neutrality.

President Wilson in his address to Congress in April, 1917, clearly proclaimed to the world the reasons which made it incumbent upon us to declare a state of war to exist between this nation and Germany. That "decent respect to the opinions of mankind," which caused our forefathers in their Declaration of Independence to declare the causes which impelled them to proclaim the colonies to be free and independent states, has caused President Wilson to set forth before mankind for the present and future judgment of the world the reasons which have impelled the United States to align itself alongside France, Great Britain, Belgium, Italy, and their allies in war against Germany and the other powers with which she is allied. These reasons are well known, too well known to need repetition here.

We are in the war not for self-aggrandizement, not for territory or power or world influence, but to help make the world safe for democracy.

There are many of us who are glad we are in the war—not glad because we wished for war with all its direful effects, not glad because we saw an opportunity for revenge for things which we abhorred, for widows and orphans unnumbered, and ruined homes and devastated fields, but glad that our country had at last taken the stand which the principles she professed, and her glorious history demanded she should take. We were rejoiced that her right arm was at last bared in the defence of those principles of right and justice of human liberty and equality before the law for

which our fathers fought and in support of which they pledged their lives, their fortunes and their sacred honor.

Toward the ideal which our fathers saw and toward which all over the world men have been struggling, we have been progressing since those fateful days in 1776. A government of the people, by the people and for the people. We do not pretend that we have reached perfection in a democratic form of government any more than we claim that our citizens have reached perfection in individual self-government—the first will not be attained until the second is realized. We do claim, however, that under democratic government as here carried out, liberty and justice before the law, equality of opportunity and freedom of action, opinion and speech, are more nearly realized than anywhere in the world, and that continued progress toward the perfect ideal can be recognized by all who read our history.

The fact that stands out before all the world, to quote Mr. Wilson's speech of June 14, 1917, delivered in Washington, "is that this is a people's war, a war for freedom and justice and self-government amongst all the nations of the world, a war to make the world safe for the peoples who live upon it and have made it their own, the German people themselves included." Germany, by her ruthless, unjustifiable aggression upon the territory and rights of smaller and independent nations, has bared to the world the adoption on the part of her rulers—not her people, for they have had little or no choice in the matter—of a world policy which proposes to ignore the rights of small and weak nations and overcome by military power and diplomatic intrigue those stronger powers which may stand in her way. And why this policy? To benefit the people of her own or these other countries, to enlarge their freedom, to better their condition? No! Admittedly and necessarily under German rule as history reveals it, no! But to extend the field of German commercial power, to propagate what is known as German "Kultur"—which is as widely separated from what is here and in all free countries known as "culture" as is the East from the West. We hear much from certain inspired sources of this being a rich man's war, a war encouraged and supported by capitalists. As far as Germany and her allies are concerned this is a war of that sort. Her rulers, supported by her bankers and commercial houses, entered upon this war not,

as falsely claimed by the Kaiser and his ministers, as a war of defence, but a war of self-aggrandizement. If Germany is successful, will there be any freedom of the seas? Will the commercial houses, the manufacturing interests, the agriculture of Russia and Italy, of France and Great Britain, of North and South America, supported and carried on by the great mass of the people, in which all the people are more vitally interested than capital, have in the markets of the world equal and free opportunity of trade and commerce? We most sincerely believe to the contrary.

Nowhere in the world at no time in its history has there been such a growing and intelligent interest on the part of men of wealth and influence and education in the conditions of the laboring man as here, and at the period just preceding the war. At no time has the fortunate man taken more interest in his less fortunate brother; at no time have there been more plans laid to bring about a greater cooperation between capital and labor, between the employed and the employer. Some of these plans have been badly conceived, some visionary and impossible, but some are already showing results and others are bound to work out great benefits for all classes in the future.

To these, as far as possible, the general government and the government of the various states have given hearty support. The war instead of halting these endeavors has aided them, and the capitalist and the laboring man, the employer and the employee, are getting, because of their united effort in a common cause, a better understanding of each other's point of view and a broader and deeper sympathy with each other's aspirations. When capitalists bring their money in sums which almost stagger one's comprehension to the support of the government, to the aid of the Red Cross, to the rescue of the starving Belgians and Serbians and Poles, the victims of German terrorism and cruelty; when they leave positions which bring them thousands of dollars in remuneration to work for the government or the Red Cross, or in war relief in Belgium or elsewhere without remuneration and at their own expense; when they and their sons enter the military service in enthusiastic defence of the principles of universal freedom; and when labor organizations pledge their support to the government and announce that loyalty to the flag is above and beyond all loyalty to labor unions—then we may say, as thank God we can say,

in the face of these accomplished facts: We are united for freedom. We are fighting not for dominion or power or spoils, but for equal rights and equal opportunity for all before the law, and protected by the law.

We trust that no specious promises of German diplomacy, a diplomacy which looks upon solemn treaties as scraps of paper, no vain and visionary theories of government without the rule of law, no anarchistic defiance of all law will induce any people who have entered the contest against autocracy to turn back or give way.

All of the powers in opposition to the central powers have made public proclamation of their aims in the war and the causes which forced their entrance to the conflict.

These statements must appeal to all who are working toward liberty and self-government.

We hope they may appeal to the people of the countries with which we are at war and that they will be induced to seek for themselves self-government, which has hitherto been denied them, and in seeking find, and then they will gladly accord to others the blessings they have attained.

Obituary.

DR. CHARLES H. NORTH.

Some men subscribe to the Hippocratic oath, others live it. Dr. Charles H. North, Superintendent of the Dannemora State Hospital for the criminal insane, was of the latter, and he stood at a professional altitude which medical students might well mark as their goal. Dr. North died Wednesday, December 12, 1917, from stab wounds inflicted by an inmate of the institution over which he had supervision and which he had made one of the foremost in the treatment of insane criminals in this country. The Dannemora State Hospital was recognized as such, and its prestige was acquired by high ideals and unswerving purpose.

The success of Dr. North was due to his devotion. From the day he entered the service of the State of New York as medical interne at Matteawan State Hospital he concentrated every thought and energy to the task which was before him. Determination which was necessary for preliminary education gave him the poise to remain practical, and his worth was soon considered by seniors in the profession. It was predicted that he would be what he was, and within six years from the day he registered at Matteawan he was made superintendent at Dannemora. This was on December 17, 1904, a record for those entering the service.

If modesty is one of the sustaining elements in upholding the standards of any profession, no man ever contributed more to the ethics of his calling than did Dr. North. His presence in the councils of the societies with which he was associated, even without utterance, was vigorous opposition to the spectacular, a leaning towards which there had been for the care of the insane criminal as well as the sane. His fight was against methods urged by emotion and which could not be supported by intelligent diagnosis. His stalwart refusal to recede from that which he knew by years of experience was right earned for him the intrinsic respect of superior officers, those in subordinate places attached to the hospital,

and all others who had opportunity to know him well enough to estimate his professional mentality and his personal integrity. Dr. North once said, "If we are to go forward, intelligence and integrity must accompany us every inch of the way."

While attending a meeting of medical superintendents recently, he casually stated that the moment any physician or surgeon ceased to be a student he ceased to be of any further value to his profession. He exemplified this in the treatment of the state's charges at Dannemora and in the management of the fiscal affairs of the hospital. He had but one ambition, and that was to enlarge the efficiency of every department of the institution. During his administration its capacity was substantially doubled, additional structures having been erected with scarcely more than inmate help under instruction of the officered staff. Large wings were built on the northwest and southwest extremities of the hospital proper; also a mess hall, infirmary and shop buildings, together with a large storehouse and cold storage plant.

That Dr. North was a student is further verified by papers which he had written, which were widely printed and which were accepted as authoritative by members of his profession. During a period of unrest when there appeared to be a danger of the emotional submerging the intellectual, Dr. North held firmly to his conviction that in the end safe and sane professional procedure would triumph. He was confident as to the outcome, and in his contributions to the medical journals and other periodicals he never omitted to register his views, and with full knowledge that criticism would ensue. That attack might come, however, did not deter him from that which he knew was his bounden duty to his profession.

Among his offerings was a paper: "The Mind of the Criminal," which he read before the New York State Federation of Women's Clubs at Rochester in November, 1916. This article was quoted extensively, the opposition to it emanating largely from a laity working along lines of uplift. The profession, nevertheless, received it with approval. Other papers were: "A Proposed Change in the Criminal Law," "Insanity Among Adolescent Criminals," and "The Attitude of the Commonwealth Towards Public Institutions." Subsequent to the publication of his opinions relative to changes needed in the criminal law, amendments

were framed and legal processes as bearing on commitments and releases of insane criminals were enacted into law, bringing order out of confusion. For these analyses he was commended by those who saw the errors but who failed to point the road to a solution.

Dr. North was appointed medical interne at Matteawan State Hospital on July 16, 1898. Two years later he was made First Assistant Superintendent to Dr. Robert B. Lamb, who was then Superintendent at Dannemora. With the transfer of Dr. Lamb to Matteawan, Dr. North was made Superintendent at Dannemora, his appointment having the date of December 17, 1904. When Dr. North assumed the superintendency the building had advanced little beyond a formulative stage, so that which it is to-day bespeaks volumes for the studious attention which he gave to details of construction, the hospital being abreast of the times in institutional equipment.

The out-of-doors appealed to Dr. North strongly, his vacation days being spent in the main with rod and gun. Life in the open had that charm for him which explains, undoubtedly, his position in the front rank of naturalists in the state. He was also a lover of music, and as first violin of the institution orchestra he lifted this ensemble for above amateur limitations.

In his death the State Department of Prisons, quoting Superintendent James M. Carter, loses a man whose place will be difficult to fill but whose faithfulness and sterling qualities actuated him to build an organization which will be a bulwark of assistance to the bureau for all time.

He was a member of the American Medico-Psychological Association, Medical Society of the State of New York, National Prison Association, Northern New York Medical Society, Omega Upsilon Phi (medical fraternity), American Forestry Association and American Civic Association.

Dr. North was born at Palmyra, N. Y., and was the son of Henry M. North, M. D., and Sarah Jane (Grover) North. He was educated in the Palmyra High School and was graduated from the University of Buffalo in 1898. On November 15, 1905, he was married to Luella Barber Robinson of Clyde, N. Y., who, with three children, survives him. The interment was at Palmyra.

DR. ALEXANDER REID URQUHART.

URQUHART.—On the 31st July, at Tannachie, Meads, Eastbourne, ALEXANDER REID URQUHART, M. D., F. R. C. P. E., LL. D., of Milnfield, Elgin, and late Physician-Superintendent of James Murray's Royal Asylum, Perth, aged 65. Cremation at Golders-green.

Great must have been the sorrow of Dr. Urquhart's many friends when the British newspapers brought the foregoing marked item to this side of the Atlantic. For no British alienist was more respected or more admired in this country.

This journal published four years ago (October, 1913), on the occasion of his resignation, an appreciation of Dr. Urquhart which it may be permissible to reprint as a tribute to its deceased friend at this time.

The resignation of a distinguished superintendent is announced from Scotland. Dr. A. R. Urquhart, physician-in-chief of James Murray's Royal Asylum, Perth, retires after a service to that institution of thirty-four years. Few British psychiatrists are so well known in this country, since our colleague has wrought zealously both as scientist and administrator and made his influence felt on both sides of the Atlantic.

Dr. Urquhart graduated with honors from the University of Aberdeen in 1873. His career in mental medicine began as assistant medical officer at Murthly Asylum, Scotland, about forty years ago. Later he saw active and varied service in mental hospitals in England. In 1879 he was called to the superintendency of James Murray's Royal Asylum. For many years Dr. Urquhart was one of the editors of the *Journal of Mental Science*, a rôle in which he did work of high order and greatly extended his reputation.

Not only has he raised the Murray to a position of enviable eminence among institutions of its kind, but in the long years of his residence in Perth he has taken a leading part in public affairs and endeared himself to the county by a life of peculiar civic richness. In the British Medico-Psychological Association Dr. Urquhart has exerted conspicuous influence, his penetrating mind and sturdy common sense having always been a tower of strength in the councils of that society. He is a Fellow of the Royal College of Physicians of Edinburgh and has been an honorary member of the American Medico-Psychological Association for many years.

We regret to learn that impaired health has compelled our *confrère's* retirement from active work. This journal bespeaks for him "an age of ease" with "all his prospects brightening to the last," and his heaven commencing "ere the world be past." That he has richly earned as the reward of his long and faithful labor. It is reported that Dr. Urquhart has retired on pension equal to two-thirds of his salary.

Alas, our good wishes on behalf of Dr. Urquhart were never realized. He was ill when he left Perth with his family three years ago for a more genial climate in the South of England and never regained his strength. Yet he never lost hope, neither did his family, and looked forward to a time when he might return to his literary work and some of his old and many interests. Dr. Urquhart had a catholic taste in literature, and indeed in all else, and was well fitted to lead a life of leisure had he been spared to earn the reward he had won. He wrote clearly and tersely, he had strong opinions on all subjects and was always ready to defend them; and he had in a peculiar degree what men understand by "character." He was a hard worker always, never sparing himself, but, above all, he was a staunch friend and the friendship of a strong man cannot be foregone without bringing to his survivors a painful sense of loss.

DR. GEORGE L. SINCLAIR.

Dr. George L. Sinclair, late Inspector of Penal and Humane Institutions for Nova Scotia, died in Florida, October 29, 1917. For many years Dr. Sinclair was of the Nova Scotia Hospital for the Insane at Halifax, assistant physician from 1878 to 1892 and medical superintendent to 1898, in which year he was appointed inspector. The latter office he held till his resignation, on account of failing health, in 1914. The deceased alienist was a son of Captain George Terry Sinclair of the Confederate Navy and of Norfolk, Va., who, after Appomattox, betook himself to Halifax. He received his general education in part in Edinburgh, Scotland, and graduated in medicine from the College of Physicians and Surgeons of New York in 1872. He was a man of striking presence and most agreeable personality, and, besides being a wise physician, a citizen of the highest type. He is survived by his widow and a sister, Mrs. F. J. Tremaine, of Halifax.

DR. MOSES J. WHITE.

Dr. Moses James White died on the 14th day of March, 1917, at his home in Hartford, Conn. Dr. White had made his home in Hartford since his retirement from the head of the Milwaukee County Asylum to be near and to care for his aged mother.

He was long and favorably known to the members of the American Medico-Psychological Association as the superintendent of the Milwaukee County, Wisconsin, Hospital for the Insane, which, although belonging to the municipality of Milwaukee, took rank with state institutions in all respects. Dr. White had served a long and most creditable term in the above institution, having entered upon his duties in January, 1887, as assistant superintendent and succeeded to the superintendency in June, 1888. Over a quarter of a century, Dr. White presided with success and distinction in the Milwaukee institution and his retirement at the end of 1916 was largely the result of political changes, as the performance of his duties had been competent and skillful.

Aside from his administrative duties, Dr. White was especially interested in developing industries among the patients, promoting salutary amusements as a part of their treatment. He also prepared and published papers on the "Prevention of Insanity" and "Provision for the Insane Awaiting Commitment." He also perfected an invention of value for opening the doors of the locked patients' rooms by an electric device which would be available in case of fire or panic. This system was successfully installed in his own institution. He also was among the early introducers of congregate dining-room service.

Dr. White was the son of a physician who practiced in Hartford, Conn. He had three brothers, likewise physicians, all the natives of the north of Ireland. Dr. White was born at Hartford, February 28, 1860, and was educated at the high school, later taking an academic course at Princeton University and a scientific course in La Fayette College, Easton, Pa. He graduated in medicine from the University of the City of New York in 1884, and, until his appointment to the position in Milwaukee Club, of the Deutscher Club of Milwaukee, and held a prominent position as a Free Mason in the Kilbourn Lodge of Manhattan State Hospital for the Insane."

Dr. White, in addition to his membership in the American Medico-Psychological Association, was a member of the Milwaukee Club, of the Deutscher Club of Milwaukee, and held a prominent position as a Free Mason in the Kilbourn Lodge of Milwaukee. He was a member of the Protestant Episcopal Church.

He married, in 1886, Miss Lizzie Ella Lownes of New York City. He is survived by his widow and one son, Reginald James.

Dr. White's last resting place is Milwaukee's beautiful "Forest Home." His funeral, held in Milwaukee under the auspices of his Masonic brethren, was largely attended by his extensive circle of lifelong associates and friends, personal, professional, and official.

RICHARD DEWEY.

Book Reviews.

The Mastery of Nervousness, Based upon Self-Reeducation. By ROBERT S. CARROLL, M. D. (New York: The Macmillan Company, 1917.)

In this book of over 300 pages the author discusses the causes, prevalence, symptoms, and treatment of those disorders to which the term nervousness is generally applied. The scope of the book may be best judged by briefly outlining the chapters.

Under the Age of Nervousness Dr. Carroll discusses certain factors in modern life tending to produce the trouble, such as modern restlessness, modern intensity, competition and so forth. As to the prevalence of nervousness, he says: "Nervousness, once a disease of the elect, now invades the homes of all classes. My neighbor's domestic tranquillity has been disturbed these nine months because his faithful, 200-pound Mary is suffering with the 'nervous prostration.' 'De heat ob de gas range has sort o' a dryin' 'fect on de brain,' and she must now take a rest."

Under What is Nervousness Dr. Carroll calls attention to the valuable nervous temperament and how through it man has made the advances in every sphere of life, increasing his knowledge, his capabilities and so forth. As to the nature of nervousness it is "truly a mental, not a physical, illness. Nervousness represents a high capacity for response to external and internal stimuli, with lack of selective and inhibitory control."

As to types, there are the motor, or most conspicuous, hypersensitive, suggestible, neurasthenic, hypochondriac, self-centered, and the repressed.

Chapter IV on Getting Ready to be Nervous begins with a discussion of heredity, but passes rapidly to intemperance, and food intemperance seems especially to rouse the indignation of the author. Home training, however, calls forth much criticism of the conduct of parents. Of education the author concludes, "As a result, thousands of inadequate minds are annually being sacrificed on the altar of higher education."

Eating errors is the next subject taken up and overeating is condemned forcibly. Statements are made in such a way that they will impress the reader. Poor cooking is given a strong condemnation and is blamed for much alcoholic intemperance. "Food so prepared [poorly cooked] is practically incapable of digestion by the normal stomach, until it is overstimulated by pepper or whipped up with alcohol. Thousands of periodic drunkards begin a spree, unconsciously seeking in alcohol a temporary appease from the nervous harrowings growing out of their inability to assimilate the unconscious criminality of the kitchen."

In the Penalty of Inactivity is first shown that nature intended that man should be physically active. "Muscle is not only the furnace ceaselessly

turning food and air into warmth and power and reserve strength, but it is the body's incinerator, burning into harmless ash the nerve-nagging toxins which so quickly form through indulgence and inactivity." "Man's wit has made his muscle of little importance" and as a consequence "tired men, tired women, tired children are about us." "Most of the 'tired' and 'tired out' are either chronic loafers of life or the nervously exhausted sons and daughters of toxic and emotional success."

Next is considered Eating for Efficiency and the simple rule is given that food and work, carbon and oxygen, must be balanced. Considerable discussion of the question extends into another chapter, The Right Use of Sweets, of Proteids, Use and Abuse of Fats, Oversoluble Foods, Drugs as Foods, and Efficient Eating being subject heads.

Work may be by brain or brawn, but "all mankind not utterly defective has something to do." "The danger of overwork is far less common than that of underwork." The necessity for physical work is clearly shown, but it must be well directed. "Work may be defined as consistent, productive action, and play as pleasurable action."

The Fine Art of Play is next discussed and the various forms of games and exercises are pointed out as of more or less value. It is of interest to note that in this chapter only physical forms are considered. Not one intellectual form of play is noted, and this side of the physical sports noted is not elaborated as it might be. The author fairly states that "it is not the high-priced system, not the elaborate appliances, but the faithful following of a simple routine, systematically and persistently, which brings the desired health and the strength and vitality which are the basis of physical vivacity, productiveness and resistance. Exercises specially planned for health are so lacking in the play element that many of the above suggestions are given with full recognition of the large amount of moral courage necessary to successfully carry them out."

The remaining chapters of the book are entitled: Tangled Thoughts, Emotional Tyranny, Ills and Our Wills, Clear Thinking, Moulding the Emotions, Willing Wills, Our Moral Selves, Rebellion, Surrender, Discord with Self, Sublimation of Strife, The Fulfilment of Self, and Harmony. Space does not permit a close analysis of the book, but sufficient has been said to indicate the character of the first part and this latter part deals with what we as psychiatrists are naturally familiar.

It may be said that Dr. Carroll has written a book which can be placed in the hands of "nervous" patients with safety and if they will read it carefully they cannot but be impressed by the truths which he has presented in such a striking way. That Dr. Carroll is not lacking in humor is shown here and there, as witness the following: "Health will improve hand in hand with the ability to comfortably subsist on milk, and there is no one who cannot be readily taught to benefit by an addition of milk to his diet, if he replace antagonism and preconceptions by determination (and Vichy!)."

W. R. D.

Psychological Medicine. A Manual of Mental Diseases for Practitioners and Students. By MAURICE CRAIG, M. A., M. D. (Cantab.), F. R. C. P. (Lond.). Physician for and Lecturer on Psychological Medicine, Guy's Hospital, etc. Third Edition. (Philadelphia: P. Blakiston's Son & Co., 1917.)

The first edition of this work appeared in 1905; the second edition was reviewed in this JOURNAL for October, 1913.

The author states in the preface to the third edition that the involvement of almost all European countries in the war has, as has been the case in many other studies, interfered with research in psychological medicine. At the same time he admits that the necessities of war, bringing in new observers and opening up new fields, has resulted in much progress, and he predicts in the near future more rapid progress than ever before.

A new chapter in this work has resulted directly from the war, devoted to the functional neuroses and psycho-neuroses observed in those exposed to the stress of war.

There have been few changes in the general text. The classification is the same as followed in the second edition and the same criticism made in the review of that edition still applies.

Paresis, or General Paralysis of the Insane, as the author, following English custom, calls it, is defined as "a progressive nervous disease, characterized clinically by progressive, mental and physical deterioration." Syphilis, in accordance with recent observations, is recognized as the "Essential factor in the disease," with of course numerous secondary or contributing factors. We do not think the author has laid sufficient stress upon lumbar puncture and the examination of the spinal fluid as a routine diagnostic method. A Wassermann examination of the spinal fluid is mentioned at the close of the section giving directions for spinal puncture, but no mention is made of the Lange colloidal gold reaction.

Under treatment of paresis the author shows a strong pessimistic tendency. He refers to trephining, and subarachnoid drainage is mentioned, but one looks in vain for any reference to the use of salvarsan. The Swift-Ellis intra-spinal method is nowhere that we can ascertain even mentioned. The new edition gives more space to psycho-analysis and the new chapter is upon the functional neuroses and the psycho-neuroses incident to exposure to the stress of service in war.

This chapter will be read with much interest and some things of value will be obtained by the reader. One is compelled, however, to regret that so much has been condensed into so small a space and that the chapter has not been illuminated by the introduction of a few well-reported cases.

The present edition may be said to represent a middle ground position on the part of the author between the old and the new psychiatry. We predict that after the war a new edition will of necessity be almost wholly rewritten.

A Clinical Manual of Mental Diseases. By FRANCIS X. DERCUM, M. D., Ph. D. Professor of Nervous and Mental Diseases, Jefferson Medical College, Philadelphia. Second Edition, Revised. (*Philadelphia and London: W. B. Saunders Company, 1917.*)

The first edition of this book was published in 1913 and was reviewed in this JOURNAL in that year.

The same general arrangement has been maintained in the new edition that was used in the first. We are still inclined to criticize the author's classification or grouping. We see no reason for separating the dementias, if he proposes to treat the varying clinical pictures as dementias, and many which would justify their being considered together though admittedly differing widely in etiology. Chapter VII a brief one of less than four pages is devoted to a consideration of "The Dementias." It is wholly unsatisfactory. The author's definitions of primary dementia and his statement that secondary dementia is "quite common as the terminal stage" of dementia præcox cannot be accepted as in accordance with observed facts.

If paresis is a primary dementia so also is dementia præcox, but the author leaves his reader in doubt at times as to whether he considers dementia præcox as a dementia except in its final stages.

The chapter upon Paresis has been brought up-to-date from an etiological, diagnostic and therapeutic point of view.

There are many points of improvement in the new edition, but the author still appears, notwithstanding an occasional caution against too much medication, to depend upon hypnotics to a degree which is not found in hospital practice.

In our own experience we have found that patients who have been treated at their homes for any great length of time are quite commonly confused and stupid for some time after admission, often to a degree which obscures the real condition because of the too ready resort to hypnotics and in too large and too frequently repeated doses.

We hope that all of Dr. Dercum's readers will dwell with more care upon his brief warning against too much drugging than upon the list of hypnotics he recommends.

The book is well written and will find a useful place in the physician's library, that it has already done so is suggested by the appearance so soon of a second edition.

AMERICAN JOURNAL OF INSANITY

PSYCHIATRIC FAMILY STUDIES.

SECOND PAPER.

DEALING WITH THE PSYCHOSES OF BROTHERS AND SISTERS.

By ABRAHAM MYERSON, M.D.,

Assistant Professor Neurology, Tufts College Medical School; Chief, Out-Patient Department, Psychopathic Hospital, Boston, Mass.

(From Laboratory of Taunton State Hospital, Mass.)

In a previously published paper certain of the results obtained from a study of family groups which had been committed to Taunton State Hospital from 1854 to 1916 were studied. Included in the paper were the details concerning certain groups. First, those in which more than two generations were represented, and, second, some of those in which two generations in the direct line (father or mother and descendants) were represented. It will be seen that the study dealt with what may be called the vertical transmission of the psychoses, what I have called the hereditary line of descent of the psychoses. This present paper attacks the problem of family insanity from another direction, the chief consideration being the types of mental diseases presented by siblings; that is, by brothers and sisters. This study, therefore, may be called a horizontal section of family insanity.

The chief problems may be stated as follows:

1st. Given two or more insane siblings, do their psychoses tend to be like or unlike? If like, what diseases are most apt to run through such a fraternity? If unlike, are there any disease groups that are mutually exclusive?

2d. This brings up another question which bears upon the relationship of the two great, so-called endogenous mental diseases—*dementia præcox* and manic-depressive insanity. In the previous paper, it was stated that manic-depressive in an ancestor was quite likely to be followed by *dementia præcox* in a direct

descendant, but that the reverse, dementia præcox in an ancestor and manic-depressive in a direct descendant occurred but seldom, if at all. If this be so, how about the occurrence of the two diseases in the same fraternity? Does that happen commonly or exceptionally? The evidence, one way or another, has been gathered from the literature and from the Taunton cases.

It will be obvious that very grave difficulties present themselves at the very outset of the study, and in order not to incur the reproach of having overlooked them, I shall state them in some detail. In the first place, psychiatric diagnosis, except in a few diseases, is empirical and rests on no sure foundation. The classification is not biological and originally was based on criteria that have been largely abandoned, so that it is now approaching a haphazard state again. Once, we believed that dementia as an end result in dementia præcox was a terminus that established the diagnosis—this has long since been abandoned as a *necessary* sign. At the same time we were told that a circular course denoted manic-depressive insanity, especially if there was a free interim. But now, the accepted authority has a place for circular dementia præcox. Catatonia stepped from its high place as a disease entity and became a symptom of dementia præcox, but the flight of time has brought a group of observers to the point where they speak of it as a symptom of manic-depressive insanity, while one writer, Urstein, has re-elevated it to a disease in itself. This is not all nor yet the worst, for the foundations of psychiatry are being crumbled by the attacks of psychoanalysts who claim to find mechanisms at work which, if accepted, render puerile classification based on more superficial characters. Schizophrenia is now the magic word which explains very diverse appearing conditions, and it is a commentary on the eager desire for a solid basis upon which to rest our diagnoses and our conceptions of mental diseases that this term is rapidly supplanting dementia præcox in many clinics.

Add to these inherent difficulties the misleading character of records as a basis for a diagnosis and the task assumes a forbidding aspect. *If it is so difficult in life to differentiate between a stuporous depression and a catatonic stupor, how can one do so from a record, perhaps written by a bored, uncritical, junior*

physician whose mind was decidedly elsewhere or an executive official absorbed in cutting down expenses?

A happier side to the situation presents itself. The great majority of dementia præcox cases in their asylum aspects are clear-cut. Any group of psychiatrists walking through the wards of an insane hospital will agree without question on the majority of cases that they see. The cases that merge with manic-depressive are a small though compact group, and the questions that arise in differential diagnosis in such cases are apt to be one of the following: Is this an excited catatonic or an excited manic? Is this a stuporous depression or a catatonic stupor? The only way out of the difficulty in the doubtful cases is not to stick too closely to the question, "Is this manic, dementia præcox, or what not?" One may ask of two cases, "Are these essentially similar from the biological standpoint, do they present agreement or difference?" and much of the difficulty of finding a name evaporates.

This paper, without pretending to be more than the expression of opinion (since the true scientific exposition of the subject is yet in the future) is divided into the following parts:

1st. A study of 74 Taunton families selected from the 400 families available. The ground for this selection has not been the character of the cases so much as the availability of the records and the accessibility of the information concerning them.

2d. The critical review of similar work done by others.

3d. A consideration of theory and a tentatively advanced working hypothesis.

PART I.

BROTHERS AND SISTERS.

In the following cases I shall be as brief as possible. The cases in which the diagnosis is clear and presents no difficulties will be merely summarized. In other cases where diagnosis is in doubt and where facts of an interesting kind, bearing on the theories of heredity and the theories of the psychoses, are to be presented, a detailed account will be given.

To Miss Marion Sweet, my former assistant, I owe sincerest thanks for these charts.

Explanation of Symbols.

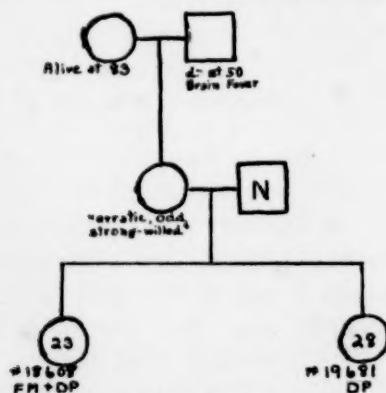
□	Male	I	Insane
○	Female	DP	Dementia Praecox
◇	Sex unknown	MD	Manic Depressive
⋮	Miscarriage or still birth	FM	Feeble Minded
d-	Died	Ep	Epileptic
		Alc.	Alcoholic
		TB	Tuberculosis
		N	Normal

Number beneath symbol Patient in Taunton State Hospital

Number in symbol Age on admission

GROUP NO. 1. DEMENTIA PRAECOX IN ALL MEMBERS.

A. Female, No. 18608, single, 23 years on entrance March 5, 1909. Maternal grandfather, "brain fever," age 50. Maternal grandmother alive at 83. Mother erratic, odd, strong-willed, dominant, extravagant.



GROUP NO. 1.

Father normal. Did poorly in school, without doubt feeble-minded, poor physically. In hospital, mute, had to be fed, dirty, masturbated. Became demented, untidy, talked in disconnected manner. In hospital now.

B. Female, No. 19681, single, 28 years on entrance June 7, 1911. Onset with excitement, destructiveness, flightiness, active auditory and visual hallucinations, was disturbed, hallucinated, destructive, obscene, negativistic. Discharged unimproved to private hospital October 30, 1912.

GROUP No. 2.

A. Female, No. 14615, single, 22 years on entrance June 4, 1900. Father had epileptic attacks. Onset with confusion, paranoid delusions of vague character, hallucinated, mute, refused food. In hospital, reticent, seclusive, occasionally violent, demented. Transferred to Medfield January 5, 1904.

B. Female, No. 16175, single, 23 years on entrance October 28, 1903. Onset at 19. It is now stated paternal uncle was insane. Patient had queer spells for years. In hospital, negativistic, mute, demented, occasionally violent. Transferred to Medfield.

C. Female, No. 18688, single, 25 years on entrance May 15, 1909. Had an illegitimate child. Onset with excitement, talkativeness, later became hallucinated. She became demented, curled up on bench, obscene, hallucinated and seclusive. Transferred to Medfield.

GROUP No. 3.

A. Female, No. 14639, married, 26 years on entrance July 2, 1900. Father died of tuberculosis. Was a bright, vivacious girl, practised self-abuse for years. Depressed at 17. Eleven months after marriage had child. Then became profane, obscene, incorrigible. Was sent to a sanitarium. Gradually grew worse. In hospital, restless, disturbed, had to be restrained, grew demented, hallucinated. Died of pulmonary symptoms, probably pulmonary tuberculosis, June 9, 1901.

B. Male, No. 20306, separated from wife, 35 years on entrance August 20, 1912. Backward in studies, seclusive, masturbation. Had gonorrhœa in 1906. Delusions of presecution, hallucinations of hearing, ideas of reference marked, apprehensive. Short improvement for time, became suicidal as a result of auditory hallucinations. Became depressed, apathetic and seclusive, demented, active hallucinations. Died of pulmonary tuberculosis July 10, 1916.

NOTE.—The sister is said to have been bright, the brother always dull, yet both individuals developed very similar psychoses and died of pulmonary tuberculosis.

GROUP No. 4.

A. Male, No. 15898, single, 30 years on entrance September 15, 1898. Onset a year before admission. Auditory hallucinations, marked insomnia. On admission active auditory hallucinations, delusions of persecution and reference, impaired memory, suspicious, unsociable, threatening and violent at times. Later became demented, apathetic and untidy.

B. Female, No. 20329, single, 21 years on entrance September 4, 1912. Father died of an apoplectic attack. Patient one of 13 children, five died of

"meningeal" condition. There are five living sisters, all are rather frail. Brother, above patient. Very backward in school. At the age of 14 left in the fourth grade. Always quiet, had severe headaches. Auditory hallucinations commenced at 17. Untidy, restless, insomnia, memory became impaired. In hospital, restless, hallucinated, silly, disoriented, delusions of persecution. In hospital at present, demented, untidy, occasionally mutters to herself. Answers are unintelligible.

GROUP No. 5.

A. Female, No. 18029, single, 22 years on entrance December 5, 1907. Father was always somewhat slow of comprehension, considered defective. Patient was always somewhat backward, left school at 17 in the fifth grade. In hospital, was restless, active, auditory and visual hallucinations, was confused, irrelevant, disoriented, untidy in habits, became very much demented. In hospital at present.

B. Female, No. 18118, single, 20 years on entrance January 29, 1908. Was committed to Waverly School for Feeble-Minded December 5, 1907. Seclusive, never talked much, never strong, never menstruated. In Waverly, slow about work, forgetful, delusions of persecution. In this hospital, intractable, noisy, delusions of persecution, resistive, fabrications, unstable emotionally, apathetic and indolent. Later she became very silly, showed increasing dementia and auditory hallucinations. Died of acute pulmonary tuberculosis February 13, 1914.

GROUP No. 6.

A. Male, No. 17279, single, 25 years on entrance April 18, 1906. At home, depressed, deluded, hallucinations of hearing. No further history. In hospital, depressed, unstable emotionally, deluded, talkative and noisy. Active auditory hallucinations and persecutory ideas, demented. Transferred to Worcester State Hospital, June 10, 1908.

B. Female, No. 20640, married, 24 years on entrance March 29, 1913. Nothing of note in early history, sociable and congenial. Married at 21, three children. After first child had attack like present. This illness began three or four weeks before admission. Thought people talked about her, sleepless, ideas of infidelity. In hospital, confused, later memory became good, orientation perfect, agitated, noisy, apprehensive, active auditory hallucinations. Later, somewhat improved. Discharged December 14, 1914, diagnosis, dementia præcox.

GROUP No. 7.

A. Male, No. 13673, single, 32 years on entrance January 2, 1898. Had three previous attacks. In Taunton, Danvers and Medfield hospitals. Delusions of persecution, irritable, has pressure in the head, buzzing in the ears, sees spirits in room. In this hospital developed many eccentricities, knelt and prayed a good deal, seclusive, hears the devil speaking to him, moderately demented, industrious. At present in hospital, a good worker,

markedly hallucinated, shows many eccentricities, moderate delusions of persecution.

B. Female, committed to this hospital on six different occasions. First commitment, No. 15001, May 29, 1901; last commitment, No. 22588. Erotic, believes that she is pregnant and has so believed for six years. Believes that the nails of Christ are on her hand. Considerable motor activity, has delusions of persecution and active auditory hallucinations, slight dementia.

GROUP No. 8.

A. Male, No. 12100, single, 37 years on entrance January 17, 1894. Delusions of persecution, hallucinations of sight and hearing, threatened violence, disoriented, suspicious, reticent, restless, hallucinated and demented. In hospital at present.

B. Female, No. 17276, single, 36 years on entrance April 14, 1906. No history. In hospital, demented, careless about exposure of body, untidy, apathetic, reacts to hallucinations of hearing, indolent and demented. Discharged to Medfield.

GROUP No. 9.

A. Male, No. 16340, single, 29 years on entrance June 6, 1904. Paternal side negative. Maternal aunt and maternal cousin insane. Mother died suddenly. Always very backward. Hallucinations of sight and hearing marked, delusions of persecution, ideas of reference, very incoherent. In hospital at present, very demented, negativistic, untidy, salad speech, marked apathy.

B. Male, No. 16434, single, 26 years on entrance March 29, 1904. Symptoms exactly as brother.

GROUP No. 10.

A. Male, No. 16066, single, 29 years on entrance August 12, 1903. Apathetic, deluded, very hallucinated, demented and restless. Transferred to Worcester.

B. Male, No. 16073, single, 31 years on entrance August 20, 1903. Father said to have been insane for short period from 24th to 26th year. Patient excited at 26. Believed spirit had come to him and given him great power, delusions of grandeur and persecution very marked, sexual ideas prominent, later developed religious ideas of grandeur, tried to marry several unknown women, wrote erotic letters, was oriented, memory fair, somatic ideas prominent, seclusive and apathetic. Hallucinations of sight and hearing. Transferred to Worcester, paranoid dementia præcox, possibly paranoia.

GROUP No. 11.

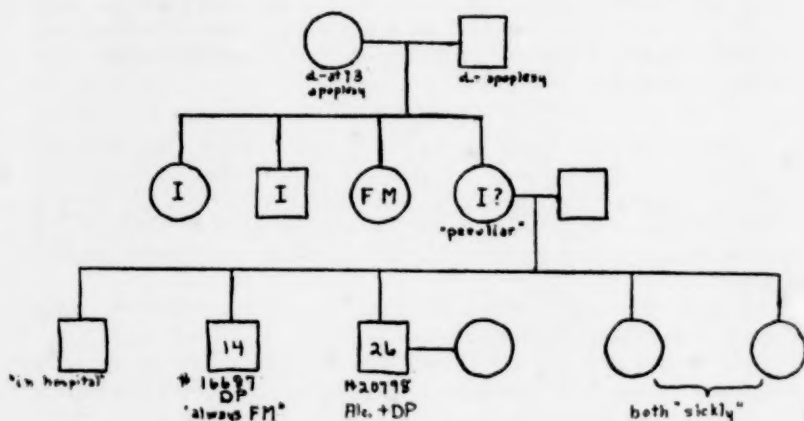
A. Male, No. 10174, single, 31 years on entrance September 26, 1887. On admission incoherent, demented, mute, probable hallucinations of hearing, resistive and cataleptic. Tube fed. In hospital, became excited, had epileptic attacks following which he was talkative, became demented, incoherent, occasionally violent. Died January 3, 1890, of tuberculosis.

B. Female, No. 15922, single, 39 years on entrance May 4, 1903. Commitment papers stated, "Hallucinated, suicidal tendencies, depressed, nervous." Did very poorly in school. Three weeks before admission attempted suicide by jumping into the river. In hospital, partly disoriented, stupid, slovenly, untidy in habits, a few delusions, incoherent in speech, wandered about the ward aimlessly. Question in this case of general paralysis, absent knee-jerks and ankle-jerks.

NOTE.—There is a question whether B is not a general paretic.

GROUP No. 12.

A. Male, No. 16687, single, 14 years on entrance December 22, 1904. Maternal grandmother died at 73 of apoplexy. Maternal grandfather died



GROUP No. 12.

of apoplexy. Mother is peculiar, believed to be insane. One maternal aunt insane, also maternal uncle. One maternal aunt feeble-minded. One older brother of patient in hospital, two younger sisters sickly. Early history, dentition convulsions, had much sickness, *always feeble-minded*. Markedly negativistic, takes attitudes and maintains them for long time, destructive, very much demented, exceedingly violent at times, mute. In hospital at present.

B. Male, No. 20798, married, 26 years on entrance July 9, 1913. Graduate in dentistry, always heavy drinker. Said to have diabetes. Assaulted his wife, excited, delusions of jealousy, obstinate and haughty, delusions of grandeur marked. He is greater than anybody else, Saint Victor and King of the Jews. Hyperreligious at times, hears the Virgin Mary, many mannerisms, loose, incoherent speech, apathetic and shows gross sexual ideas. In hospital at present.

GROUP No. 13.

A. Female, No. 15452, single, 21 years on entrance May 23, 1902. Family history is negative. Patient always very backward in school and otherwise. In 1902, hallucinations of sight and hearing, became dirty and demented. In hospital, apathetic, demented, bench type. Sent to Medfield June 5, 1904.

B. Male, No. 21591, single, 28 years on entrance August 28, 1914. Marked delusions of persecution and reference, hallucinations of hearing, demented. Transferred to Medfield.

GROUP No. 14.

A. Male, No. 14177, married, 46 years on entrance May 27, 1899. Onset for years. Delusions of persecution and reference, excited, suspicious, coherent. Diagnosed as paranoid psychosis. Transferred to Medfield.

B. Female, No. 16508, single, 58 years on entrance August 4, 1904. Second commitment, No. 18580. Coherent, memory O. K., delusions of persecution and reference, vague, fleeting hallucinations, marked lack of initiative, thought the women nurses in the hospital were men in disguise. Tube fed for a time. On re-entrance was irrelevant, incoherent, unstable. Died of organic brain disease. Paranoid psychosis is perhaps as far as one could venture on the data given.

GROUP No. 15.

A. Female, No. 17152, single, 50 years on entrance January 8, 1906. Always backward in school, feeble-minded. She and her sister, who entered at the same time, shared delusions in common. Marked ideas of persecution, irritable, fantastic hallucinations of sight and hearing. In hospital, became quiet and industrious, a good worker. At present in hospital, demented, apathetic.

B. Female, No. 17153, single, 31 years on entrance January 8, 1906. Always simple. Delusions of persecution of vague type, incoherent in speech, rambling, frequently aggressive, hallucinations of sight and hearing, delusions of poisoning marked. At present in hospital, demented.

GROUP No. 16.

A. Male, No. 15065, single, 16 years on entrance January 4, 1901. Stomach and bowels are all tied up, nothing can pass through him, some influence is on him, marked mannerisms, seclusive, memory very poor, demented and silly. In hospital at present.

B. Male, No. 16312 and No. 16474, single, 21 on first admission. Onset at 19. Very stubborn, delusions of persecution, sexual delusions of reference very marked, hallucinations. In hospital, became disoriented and demented. At present in hospital. Diagnosis, dementia præcox.

GROUP No. 17.

This family will be considered in more detail in a subsequent paper dealing with psychoses of collateral relatives since an uncle was also in this hospital.

A. Female, No. 15256 and No. 16511, single, 29 years on first entrance November 30, 1901. Much insanity on both sides of the family. At 25 was admitted to a hospital in Dublin, Ireland. Had then been sick for two years. Claimed she was mesmerized, the evil one was influencing her, had exalted religious ideas, thought she was the Virgin, marked somatic delusions. In this hospital, became very obscene, mannerisms, stereotypy of an obscene kind very prominent symptom, negativism marked, delusions of persecution, ideas of grandeur vaguely expressed. In restraint most of the time since entrance until December, 1915, when she sustained a hemiplegic stroke and since then has been quiet though exceedingly deluded, obscene and demented.

B. Male, No. 17794, single, 24 years on entrance May 31, 1907. Had tuberculosis of the hip. Always feeble-minded. In hospital, dull, stupid, became mute, had to be tube fed. At other times very much excited, demented. Died of tuberculosis January 25, 1908.

C. Male, No. 13691, single, 18 years on entrance. Onset at 16. Has become quiet, apathetic, deluded. In hospital, "memory is impaired, active delusions of persecution, hallucinations of hearing and sight, tends to be mute." Became apathetic and exceedingly demented. In hospital at present.

The uncle whose case will be reported elsewhere is also dementia præcox.

GROUP No. 18.

A. Female, No. 14970, single, 30 years on entrance April 29, 1901. Commitment papers state, "Says she is to have a baby. Laughs continually, has auditory hallucinations, talks in a halting manner." No history. Filthy on admission, had to be tube fed, thought there was poison in the food, episodes of causeless laughter, violent at times, demented. Discharged August 5, 1901, for deportation to Canada.

B. Female, No. 14971, single, 30 years on entrance April 29, 1901. Says she is to be hanged for some crime she has committed. Could not sleep. She thought people would get in from the windows. Kept curtains down and windows locked for fear some one would do her bodily harm. Sits in bay greater part of day, saying she is sick. In hospital, talks in foolish manner, takes little interest in work, looks vacantly about her when not occupied. Discharged to State Board of Insanity for deportation to Canada.

NOTE.—In the above cases though diagnosis of dementia præcox is made it is evident that there is considerable room for doubt. Possibly a longer observation would have shown reasons for a different diagnosis.

GROUP No. 19.

A. Male, No. 18039, single, 28 years on entrance December 10, 1907. Family history negative. Alcoholic, unsteady worker. In hospital, very negativistic, will not talk, hallucinated, filthy. In March, 1908, still negativistic. June 12, 1908, improved somewhat and then discharged.

B. Male, No. 20581, single, 37 years on entrance February 18, 1913. It is now stated two maternal aunts were insane, also an uncle was a drinker for one and a half years. Has been hyperreligious, believes that sounds come to him and that his head is charged with electricity, hallucinations of sight and hearing. In hospital at present, shows many mannerisms, religious delusions, silly facial expression and conduct, demented, occasionally violent.

NOTE.—First patient had catatonic attack. Second case shows dementia præcox with paranoid symptoms.

GROUP No. 20.

A. Female, No. 16858, single, 43 years on entrance May 4, 1905. Grandparents said to have died of old age. Eight brothers and sisters, of whom one is dead. Ordinarily bright, always a leader. In 1904, "father and stepmother came out with cats heads on. Later on they had dogs heads. Came and looked in through window, also came in as cows. People say she and her sister will have babies. Many ideas of persecution on the part of neighbors, ideas of reference." Discharged, boarding-out patient.

B. Female, No. 16859, single, 58 years on entrance May 4, 1905. Same symptoms as sister. Discharged to the State Board of Insanity June 30, 1905, boarding out.

GROUP No. 21.

A. Male, No. 16352, single, 24 years on entrance January 10, 1908. Father died at 48 after having been insane for four or five years. Mother died at 52, disease of the heart. Sister now living, has paralytic stroke. Worried over death of sister, was irritable, sleepless, prayed a good deal, held conversation with imaginary persons at night, thought that "he was the divine gift of heaven." In hospital, quiet, talked smilingly of hallucinations and delusions, ideas of religious grandeur marked. Became restless, cross, muttered a good deal, showed cerea flexibilitas. At times impulsive, became demented. Transferred to Medfield State Hospital, March 26, 1909.

B. Male, No. 16352, 34 years on entrance April 9, 1901. It is now learned that father died at Medfield Insane Hospital of dementia præcox. Always melancholic in disposition, became dull, stupid, disoriented, confused, marked delusions, sits in one posture for long time, believes he is Almighty God. Became demented, occasionally aggressive. Transferred to Medfield.

GROUP No. 22.

A. Male, No. 13043, single, 20 years on entrance January 13, 1899. Mother had been insane. Stole a razor, became violent, had ideas of persecution. In hospital, became depressed, demented, hallucinated. Died of tuberculosis March 13, 1909.

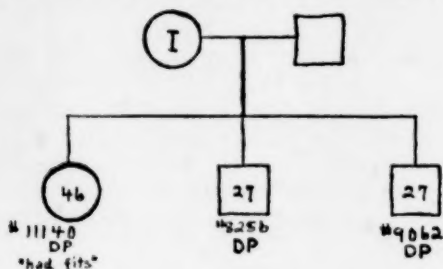
B. Female, No. 14812 and No. 15254, 28 years on entrance December, 1900. Has hallucinations of hearing, delusions of persecution and reference, delusions of jealousy. Moderately demented.

GROUP No. 23.

A. Male, No. 9062, single, 27 years on entrance December 27, 1883. Wild, rambling in conversation, threatened his mother. In hospital, sits around quietly, will not answer questions, keeps head bowed, never talks, acts demented. Transferred June 9, 1886, without showing much change.

B. Male, No. 8256, single, 27 years on entrance February 21, 1881. Was demented on entrance. Died November 13, 1882.

C. Female, No. 11140, single, 46 years on entrance June 27, 1891. Stated that mother was insane. Patient has been insane for many years, is now dangerous, demented, memory poor, fault-finding. Has had fits from the age of 7 to 14. Discharged April 11, 1892, to town authorities.



GROUP No. 23.

NOTE.—Though the records are scanty in the case of each, the onset and course of disease point almost unmistakably to præcox.

GROUP No. 24.

A. Female, No. 14438, single, 34 years on entrance December 18, 1899. Ideas of grandeur, going to inherit a lot of money, prayed a good deal. In hospital, became markedly demented and muttered to herself. Transferred to Medfield December 3, 1907, unimproved.

B. Male, No. 14430, single, 36 years on entrance December 8, 1899. Had millions of dollars, owned all the houses, walls and floors of hospital made of pearls and diamonds, memory was good, oriented. At first good-natured, noisy. Later, hallucinations of hearing, broke windows because people outside were calling him bad names, noisy, destructive, profane, became quarrelsome and irritable, gradually quieted down, did no work, demented. Transferred to Medfield State Hospital, not improved, January 12, 1903.

C. Female, No. 17759, single, 30 years on entrance April 29, 1907. Record very scanty, "is euphoric, has delusions of religious nature, grandiose." Nothing more stated. Diagnosis is given as paranoia.

NOTE.—In this family there is a striking similarity of psychotic type. All have grandiose ideas, ideas of religious character, they gradually became quieter and demented moderately.

GROUP No. 25.

A. Male, No. 7809, single, 37 years on entrance November 25, 1878. Insane heredity on mother's side. Is violent, dangerous, calls himself Christ. Was discharged as recovered. Re-entered, No. 8292, 46 years, March 29, 1881. No hallucinations, coherent, good workman, orderly, clean, believes he is a prophet, God speaks through him. Sleeps on the coldest nights with only a sheet over him. Eloped February 17, 1888. Throughout stay maintained delusions, was quiet, orderly, non-demented.

B. Female, No. 8805, single, 30 years on entrance March 18, 1883. Had a previous attack after typhoid and recovered. On entrance violent and maniacal, noisy, incoherent, destructive, became seclusive, lay on floor in doorway, had to be led to meals, never spoke. In 1887, it is stated that she was incoherent, destructive, apathetic, muttering and demented. Died June 18, 1891, with a diagnosis of dementia præcox, catatonic.

NOTE.—The brother in this family showed marked paranoid ideas which persisted over years and were considered by the diagnosticians of the time as paranoia. The sister suffered from undeniable dementia præcox. Whether the brother's psychosis belongs in paranoid dementia præcox or not is difficult to state from the records.

GROUP No. 26.

A. Male, No. 12379, single, 16 years on entrance November 5, 1894. Mother melancholic for the last two years of life. Father alcoholic. In hospital, masturbates, noisy, incoherent, usually does not answer questions, hallucinations of sight and hearing became prominent, at times stuporous. Died April 8, 1897.

B. Male, No. 12573, single, 15 years on entrance October 15, 1895. Excited, incoherent, destructive. Grew very quiet, seclusive, demented. Transferred to Medfield May 1, 1896.

C. Male No. 13509, single, 13 years on entrance July 21, 1897. Violent, noisy, quarrelsome. Never went to school. Has been insane at times for 18 months. In hospital, became quiet, tractable, very demented. Transferred to Medfield October, 1898.

NOTE.—Each of these three patients was recorded as feeble-minded throughout life. The psychosis that developed on this basis seems to me undeniably præcox.

GROUP No. 27.

A. Female, No. 16317, single, 27 years on entrance February 29, 1904. Father heavy drinker. Had scrofula in early life. Three weeks before admission developed religious ideas, thought she had been a wicked woman, that there was a devil in her, heard voices telling her that she was to die. Became destructive and refused to eat, had auditory and visual hallucinations, memory good, orientation good, insight lacking, negativistic, apprehensive. Died March 11, 1904, of exhaustion.

B. Male, No. 18746, single, 35 years on entrance February 5, 1905. Second admission June 25, 1909. During the first stay in hospital was

dull, confused, suspicious, destructive. Improved slightly and was discharged September 29, 1906. On second admission memory was fair, confused at times, auditory hallucinations. Frequently had periods of marked irritability and resistiveness. Later became disoriented as to time and place, auditory hallucinations were prominent, became apathetic, flow of thought decidedly retarded, became seclusive and demented. At present in hospital.

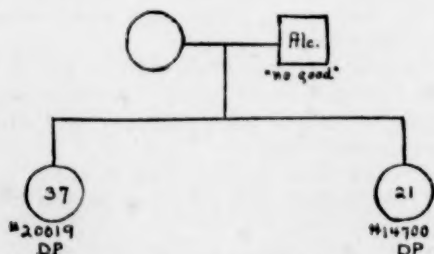
GROUP No. 28.

A. Male, No. 16594, single, 19 years on entrance October 13, 1904. Typical dementia præcox. Hallucinations of sight and hearing, mute, seclusive, resistive, became demented. Died of tuberculosis September 10, 1906. Autopsied.

B. Female, No. 18884, single, 22 years on entrance September 20, 1909. It is stated now that father had severe headaches for several years and did not work. Patient is very devout. Psychosis started when she commenced to visit priests and accuse them of immoral conduct with nuns. Despite the fact that she claimed to be a devout Catholic she denied the existence of God, the devil and the church. Said a young man was hypnotizing her for sexual purposes. Ideas of hypnosis and reference very marked. In hospital, became very negativistic and seclusive, hallucinated and demented. Discharged to Medfield, not improved, May 8, 1911.

GROUP No. 29.

A. Female, No. 14700, single, 21 years on entrance August 17, 1900. Assumes prayerful attitudes continually, will not answer questions, masturbates, untidy and demented. Was discharged to Medfield November 21, 1901.

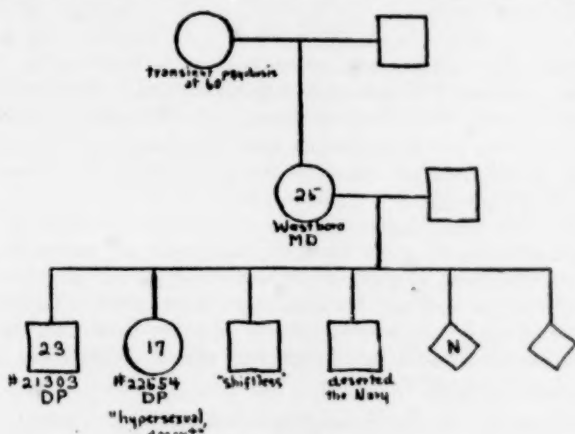


GROUP No. 29.

B. Female, No. 20019, single, 37 years on entrance May 7, 1912. Father is a chronic alcoholic and "no good." Seclusive and proud in early life. Left school at the age of 12. Developed exceedingly prominent delusions of persecution and reference. In the hospital, showed hallucinations of hearing, said evil influences were playing on her. In hospital at the present time, demented, negativistic, hallucinated.

GROUP No. 30.

A. Female, No. 22554, single, 17 years on entrance June 14, 1916. Family history in this case is exceedingly interesting. (See chart.) The maternal grandmother had a transient psychosis after grip at the age of 60. Her daughter, the mother of the patients of the generation to be considered, was in Westboro State Hospital at the age of 25 with a psychosis that was diagnosed as manic-depressive insanity and appears to have been of that character. The paternal side entirely negative. There were six descendants, two of whom came to the hospital. Of the four who did not come, one was a sailor, and said to be shiftless. Another was a sailor, deserted from the navy, and whereabouts unknown. One person said to be normal. The other is at present a child. This patient entered the hospital excited and talkative, delusions of poisoning were very marked,



GROUP No. 30.

erotic in her conduct, "hypersexual, indecent." In hospital, markedly deluded, mutters to herself, filthy, very destructive, demented, seclusive, except when very excited. In hospital at present.

B. Male, No. 21303, single, 23 years on entrance April 13, 1914. Said to be backward in school, seclusive in conduct throughout life, developed marked incoherent delusions of persecution. In hospital, resistive, negativistic, seclusive, marked delusions of persecution, dementing.

GROUP No. 31.

A. Female, No. 14746, married, 35 years on entrance October 17, 1900. Said to have been melancholic and to have had bad temper. Was in insane hospital in London, England, for three and a half years. This psychosis started with insomnia, quarrelsomeness, destructiveness. In hospital, memory poor, very deluded, auditory hallucinations, noisy, quarrelsome, destructive and violent, demented. No change during the two years of

her stay in hospital. Discharged to Medfield October 16, 1902. Thought to have been imbecile from start.

B. Female, No. 22137, married, 36 years August 3, 1915. Had a previous admission January 8, 1912, to June 29, 1914. Early history negative. This attack commenced with headache, rambling conversation, insomnia and increased religious fervor. Refused to eat, became melancholy, later was noisy and incoherent, distinct delusions of persecution and poisoning, memory was good, orientation perfect, grasp on surroundings firm, delusions of persecution moderate, hallucinations of sight and hearing, showed dementia. Was transferred to Grafton September 20, 1916.

NOTE.—The record in this case gives some doubt as to the diagnosis of *præcox*, but report from Grafton and statements of physicians who have seen patient leave no doubt that she is *præcox* at the present time.

GROUP No. 32.

A. Female, No. 18327, single, 30 years on entrance June 22, 1908. Has always been backward in school and general work. Considered feeble-minded. Is excited, takes fixed attitudes, and holds them for hours at a time. Generally apathetic, entirely mute. Remained so throughout most of her stay in the hospital. Was discharged to Medfield where a similar diagnosis has been made.

B. Male, No. 22207, single, 23 years on entrance October 21, 1915. It is now stated that three of the fraternity were insane, but details are lacking. Patient has been a vagrant and a thief. Always somewhat feeble-minded. Has active auditory hallucinations, shows marked impulses, delusions of poisoning are prominent, became silly and demented. At present in hospital, shows verbal salad (incoherent speech), untidiness, dementia, vague hallucinations and delusions.

The following cases belonging to the same group, that is, where brothers and sisters showed consistent dementia *præcox*, have been previously reported in the paper, "Psychiatric Family Studies." This previous paper dealt with them from the standpoint of a psychosis presented in several generations. Since this present paper deals with the psychoses presented by members of the same generation, I shall but briefly refer to the families. For details, see the previous paper.

In order to save space and labor I shall first give the number of the family group as it occurs in the present series and in parenthesis the number as it occurs in the previous paper.

GROUP No. 33 (FAMILY GROUP No. 2).

C, D and E (two males and one female). Condition typical in each case. History, that there are three feeble-minded brothers and sisters. Two first cousins of the above were also in the hospitals with the diagnosis, dementia *præcox*. The disease in the ancestors was dementia *præcox*.

GROUP NO. 34 (FAMILY GROUP NO. 13).

B and C (two males). Dementia præcox in each case with feeble-mindedness in C. The ancestors showed paranoid disease, probably paranoid dementia præcox.

GROUP NO. 35 (FAMILY GROUP NO. 27).

B, C and D (one female and two males). The two males were twins. The female showed paranoid dementia præcox, the brothers hebephrenic dementia præcox. The mother, who was also in the hospital, showed paranoid condition, perhaps paranoid dementia præcox.

GROUP NO. 36 (FAMILY GROUP NO. 29).

There were present in this hospital of this group five members of the same generation. In one case, A, manic-depressive insanity may be considered as a diagnosis, though the records are scanty. In all the others, the diagnosis of the hospital staff was dementia præcox. In general, the condition was periodic, paranoid, with ideas of grandeur, religious delusions, fixed attitudes and mannerisms, hallucinations of sight and hearing. Dementia is not a prominent symptom in the family. A son of one of the members, B, is in the hospital now with a similar psychosis which is diagnosed dementia præcox. There were several other members of the family, all of whom were peculiar and had the same general disposition; that is, they were suspicious, had grandiose ideas, were continually in trouble and claimed divine powers.

GROUP NO. 37 (FAMILY GROUP NO. 37).

A, B, C and D (three females and one male). Each presented similar psychoses, excitable, hallucinated, irritable, demented. One of these, A, had a son, C, who showed feeble-mindedness and epilepsy.

GROUP NO. 38 (FAMILY GROUP NO. 39).

A and B of this series (two females). Characteristic symptoms of dementing type of dementia præcox. One of these, A, had a daughter, C, who is now in the hospital and is considered typical hebephrenic dementia præcox.

GROUP NO. 39 (FAMILY GROUP NO. 40).

B, C and D (two males and one female). Presenting similar psychoses, very demented at the present time. The mother of these patients was in this hospital with dementia præcox.

GROUP NO. 40 (FAMILY GROUP NO. 43).

A and B (male and female). Brother's condition was intermittent. The sister's was more stationary. The male had a daughter who entered this hospital and is here now with a diagnosis of feeble-mindedness plus epilepsy.

GROUP No. 41 (FAMILY GROUP No. 53).

B, C and D (two females and one male). At present in the hospital. Psychoses very similar. Paranoid ideas, hallucinations, violent, aggressive conduct and dementia, usually apathetic and indifferent. The mother was in this hospital with a psychosis that was diagnosed as manic-depressive insanity, may, however, have been late catatonia.

GROUP No. 42 (FAMILY GROUP No. 58).

B, C and D (two females and one male). As is stated in the previous paper, the diagnosis here is decidedly in doubt. It is possible that an agitated form of manic insanity was the psychosis. There is a very striking similarity in the course of the condition in each of the siblings, ending in death within two weeks of entrance to the hospital in each case and having its onset at about the same period of early middle life.

GROUP No. 43 (FAMILY GROUP No. 59).

B and C (male and female). Both somewhat feeble-minded. Dementia præcox, paranoid form, properly diagnosed in each case. Both transferred to Medfield State Hospital. The mother of the patient was in this hospital with dementia præcox or involution psychosis. There was, however, insanity on both sides of the family.

GROUP No. 44 (FAMILY GROUP No. 93).

Two groups of brothers and sisters are here represented, the one belonging in the first generation and the second, descendants of one of these. A and B show psychoses strongly resembling agitated depression and involution melancholia. Two daughters of the first, C and D, are at present in the hospital; dementia præcox in one and dementia præcox, paranoid, in the other. There is a striking difference in the two conditions; in the first dementia very prominent, in the second none. Tuberculosis in D.

GROUP No. 45 (FAMILY GROUP No. 95).

A and B (two males). Mild paranoid dementia præcox in one; feeble-mindedness with hebephrenic dementia præcox in the second.

As stated before, the above cases constitute those cases of dementia præcox in siblings in which the question of differential diagnosis did not enter. That is to say, practically all the observers concerned united in the diagnoses. Later on, cases will be detailed in which the diagnosis is more difficult, but in which it is believed that dementia præcox is the proper caption.

In the group which is to follow, manic-depressive is the diagnosis made for all those members of the family who came to the hospital.

GROUP No. 46.

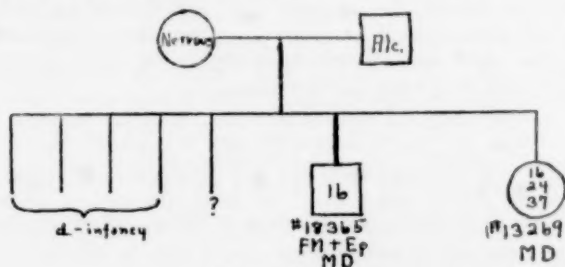
A. Female, No. 15266, married, 58 years on entrance December 7, 1901. Throughout life has been somewhat easily depressed and excited, and has been either depressed or excited for short periods of the time. At menopause, showed much irritability, lowered efficiency, and depressed mood. Recovered. One sister was insane for a year. Recovered. One brother is an alcoholic. Onset, got up in the night to do her washing, and made foolish purchases, became sleepless, would not stay in the house. In the hospital, rambling, flighty and euphoric, no hallucinations, excited and restless, interfering with other patients and giving her advice freely on how to run the hospital. After one year is jolly and shouts loudly. After a year in the hospital became better and was discharged May 31, 1902. At home has been fairly well. It is stated, however, that her capacity for work has been lowered.

B. Female, No. 15900, single, 58 years on entrance April 14, 1903. At 46 became peculiar, gave up position in hotel because of forgetfulness. Began to get run-down and became excited. Was in McLean Hospital April 8, 1891. Slept poorly, became talkative and incoherent, excited and restless, became exhilarated. In June, was despondent. In September, was discharged much improved. Remained well in interim. Entered Taunton State Hospital after an attack of grip. Was talkative, noisy and excited for a short period, often unreasonable, no hallucinations, no definite delusions. Discharged, improved, September 1, 1903.

NOTE.—While the diagnosis of manic-depressive insanity has been made in each of the above cases, it is made as a sort of last resort rather than because condition presented completely fits the diagnosis.

GROUP No. 47.

A. Female, No. 13269, single. She has had three admissions to this hospital at the ages of 16, 24 and 37, each attack lasting about three months.



GROUP No. 47.

Family history is said to be negative. Each attack commences with restlessness, sleeplessness and over-activity, becomes noisy, talkative, shows exceedingly good characteristic flight of ideas, poses and sings, emotional tone is happy. Recovery is sharp without any noticeable depression. Always well in the interim.

B. Male, No. 18365, single, 16 years on entrance July 30, 1908. A family history is now obtained. Father drinks considerably. Mother is distinctly nervous. Seven children, four of whom died before 18 months of age. This boy was sickly and distinctly feeble-minded as a result of epileptic attacks. However, between epileptic attacks he is mischievous, very talkative, euphoric, continually annoying others by his activity and interference. No delusions or hallucinations. It is stated that after each epileptic attack mental symptoms reach their height. He then acts like a typical excited manic and closely resembles his sister, except that he is feeble-minded and epileptic. Here, we have a case where manic-depressive temperament or constitution is united in one individual with epilepsy.

GROUP No. 48.

A. Female, No. 14803, widow, 44 years on entrance September 14, 1908. Family history: Brother said to be insane. Commitment papers state that she thinks she has committed an unpardonable sin, contemplated suicide, very much depressed, retarded, apprehensive. In hospital, depressed, retarded, somewhat confused, believes she has committed an unpardonable sin, wishes to die, sits in one place, is with difficulty persuaded to eat. Died of chronic gastritis April 11, 1909.

B. Female, No. 8406, single, 60 years on entrance September 14, 1908. Was in this hospital previously from September, 1903, to March 23, 1904. History states she has been in other hospitals for short attacks. Always cheerful, quiet and sociable. The first known attack was a depression. In 1903, the second attack, also depression. No hallucinations or delusions. Memory was good, orientation perfect, was depressed and retarded. Recovered. Present attack, well oriented, depressed, thinks she is about to die, everything is wrong with her, no hallucinations, grasp on surroundings is firm. She recovered from this attack, but was kept in the hospital because of her advanced years. January 25, 1915, she was placed in family care. Diagnosis, manic-depressive insanity.

NOTE.—In this family the onset of the psychoses seems to have been around the involution period, but what may be called the manic-melancholic trend of the psychoses makes manic-depressive insanity the nearest Kraepelinian entity covering the condition.

GROUP No. 49.

A. Female, No. 7857, married, 45 years on entrance February 28, 1879. Family history: Father was insane. On admission patient was much disturbed, refused food, was tube fed. Thought husband and friends were all dead, thought she had caused much of the trouble in the world, retarded, depressed. Recovered October 24, 1879.

B. Female, No. 8964, married, 44 years on entrance August 23, 1883. Had previous attacks. Suffered from melancholic attacks for some months. Thinks she is coming to want and has committed the unpardonable sin, sleepless, appetite poor, attempted suicide by hanging. In hospital, very much depressed, had to be urged to eat, thought things were continually going wrong. Improved very much and was discharged November 15, 1883.

GROUP No. 50.

A. Male, No. 9795, married, 43 years on entrance May 12, 1866. Commitment papers stated, "Ill for a long time, now sleepless and excitable." In hospital, depressed, confused, has "foul disease," a bad odor issues from him, is suicidal, wrings hands, is agitated, cries "My God! My God!" continually. Gradually improved and was discharged June 12, 1866.

B. Female, No. 9827, single, 23 years on entrance June 5, 1886. Excited, noisy, incoherent, prays continually, constantly excited and exalted, "entire incoherency in thought and action," tears off clothing, never rests day or night. Recovered entirely September, 1886.

NOTE.—The two above cases, though here listed as manic-depressive, may easily belong to the group of catatonic excitement.

In the following cases there is a distinct doubt as to the nature of the psychosis in both the sisters. They are placed in this group provisionally only.

GROUP No. 51.

A. Female, No. 16387, married, 25 years on entrance May 20, 1905. The father was a heavy drinker. Mother's side said to be negative. Early life: Average student, nervous. Attack of grip with mastoiditis. Became delirious, talkative, destructive, said people were cutting her open, no hallucinations, lost much weight. In the hospital, was very flighty and active, answers were irrelevant and with evident intent to be humorous, was silly and evasive. The following is a copy of a letter written by the patient:

"DEAR SIR:—As I have received your letter last evening, I thought I would write and let you know that if you would not come after me soon there will be another house a fire. Monday I had a very blue day it makes me feel how natty you was to me sometimes, it drew the tears to my eyes. I help the girls in the dining room to wipe a few dishes and washed the floor and dusted a little. Not one kiss nor even the real molasses kisses. Tell Brother Billy write me a long & short letter. Will you please sent me a pompadour comb or bring me one in respects of Mr. Martin looking glass, or Arthur Wheaton ale mug name after the fly of the Jue's pants not sister Julia. Julia please get me a box of paper when you come for I will try and do as much for you some day, for your poor fat sister has been dreadful sick. Love to all the folks take care of Mary and Josie. Not the big Joe, of course or because you now what I mean please give a scratch on the palm of hand and I will make your ears ring, after the ring of the hole of the brown bread or the patient of key hole."

She was discharged December 23, 1905, said to be well. In the interim was said to be well.

Second admission, No. 19524, following a laparotomy for uterine trouble. Became excited and talkative, said she was sweet sixteen and had never been kissed. Answers were irrelevant. Memory said to be good, occasionally restless. In hospital, showed marked tendency to rhyme, the following being one of her answers: "Yes, I was here in the hall, ball, gall, mall." Question: In the which? Answer: "Witch hazel and Balm of Gilead."

She did not recover from this attack. Disease became worse. Said she heard her husband loitering about the building. Believes when she was operated upon, they tried to bury her and put her in a hearse, she had leprosy, was buried, and is now a spirit, says she hears her husband listening around the building, her husband had tuberculosis, has cold feet, apathy and delusions developed, has distinct delusions directed against husband, believes he tried to kill her, was frequently talkative and noisy, she refused to eat anything but bread and pudding, developed severe diarrhoea, and later lesions on the hands and face which were typical of pellagra. She became much worse and died February 2, 1917. Autopsy performed.

Diagnosis in this case is exceedingly difficult. The onset of the psychosis seems to have been of an acute confusional type, following somatic disorder. Second attack commenced in the same way, following a laparotomy, which became chronic and at all times presented a complex picture neither clearly dementia præcox nor manic-depressive insanity. To cap the climax she developed pellagra. (The autopsy findings will be described in a paper dealing with this disease.)

B. Female, No. 19197, single, 28 years on entrance May 5, 1910. Double ovariectomy several years ago, at the age of 16. At 25, became restless, complained of headaches, was nervous and irritable. On entrance to the hospital, at the age of 28, was quiet, dull-looking, said that voices tell her that she is guilty of murder, has committed unpardonable sins, something is going to be done to her, very markedly retarded, is with difficulty persuaded to eat. Recovered in three months.

Re-entered the hospital, No. 22503, July 9, 1915, age 33 years. Same complaint: She is going to die, the heart and intestines are decayed, people in automobiles go past her house, hiss at her and call her a murderer. At present in the hospital, is absolutely mute or else mutters an answer so that what is said cannot be made out. The expression of face is extremely apprehensive. Is slightly negativistic. Her mutism or retardation is so profound that it is impossible to make further mental examination.

NOTE.—As in the sister's case, the difficulty arising in diagnosis is great. There are features in the case which resemble præcox, yet it seems to me the main change is in the mood, depression being the most profound symptom, and the delusions are entirely harmonious with them.

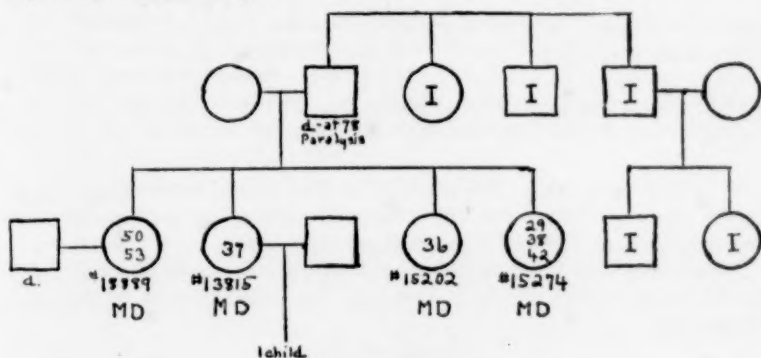
GROUP No. 52.

A. Female, No. 15274, single, 29 years on entrance September 14, 1901. Family history: Father died at 78 of paralysis. Father's sister was insane, as were also his two brothers. A niece and nephew were insane. The mother's side is said to be normal. Early history, this girl was bright, but immoral. Onset of psychosis after father's death. Was noisy, talkative, flighty, profane and euphoric, showed psychomotor activity to a marked degree. Recovered. Had two other attacks October 4, 1910, to August 26, 1911, and August 30, 1915. Recovered perfectly from each attack. Was well in interims.

B. Female, No. 18889, widow, 50 years on entrance September 27, 1909. Markedly depressed, has occasional hallucinations of sight and hearing, says it always seems like night to her. Recovered, was discharged January 19, 1910.

April 24, 1912, re-entered the hospital. Depressed, melancholic, no insight, past sins worried her, has hypochondriacal ideas, mild delusions of persecution. Recovered and was discharged January 19, 1913.

C. Female, No. 15202, single, 36 years on entrance October 26, 1901. Patient had previous attack at 33. Present attack: Somatic ideas prominent, suicidal, says she never can sleep or work, no other delusions or hallucinations, retarded, memory good, oriented. Discharged, markedly improved, August 16, 1902.



GROUP No. 52.

D. Female, No. 13815, single, 37 years on entrance June 1, 1898. Erotic, psychomotor activity, memory good, mild ideas of conspiracy. Recovered and was discharged September 5, 1898. Well in the interim.

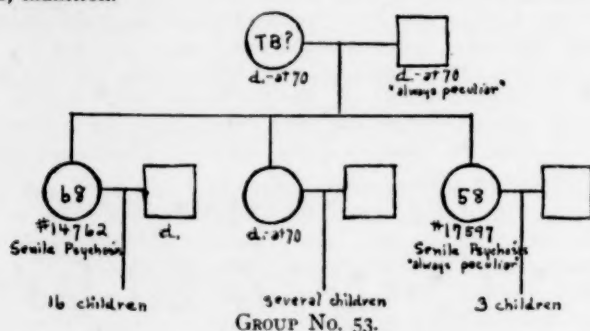
Re-entered October 26, 1901. Became married, during pregnancy was depressed, suicidal, retarded. Remained so for six months and recovered. Had two other attacks in this institution from which she recovered, one for depression, the other excitement.

In this next group are cases in which senile psychoses and involution psychoses were present in members of the same generation.

GROUP No. 53.

A. Female, No. 17597, married, 60 years on entrance December 26, 1900. Father had always been very peculiar. Died at the age of 70. Mother died at 70. Patient is the youngest of three children. She had a fit after the birth of her second child. At 32, was irritable. After the birth of the third child unreasonable for a short time. At menopause, was irritable, unreasonable, had hypochondriacal ideas and insomnia from which she

recovered. At all times an irritable, stubborn, negativistic person. In hospital, said she was very wicked, could not be forgiven, incoherent and irresponsible, at times untidy, scolds, talks constantly, says the medicine is poisoned, very negativistic and resistive, very profane. Died June 25, 1902, enteritis, inanition.



B. Female, No. 14762. It is now said mother died of tuberculosis, though this is doubtful. Was blind following grip, restless, became demented and helpless, untidy. Died in June, 1902, of pneumonia.

NOTE.—The first of these individuals was peculiar throughout life and final psychosis seems merely to have been the culmination of an abnormal personality.

GROUP No. 54.

A. Female, No. 18534, married, 56 years on entrance January 9, 1909. Family history unknown. Had four children, three still alive. Delusions of reference and persecution of vague character, restless, threatening, memory good, apprehensive and hallucinated. Died of cardiac condition September 10, 1909.

B. Female, No. 20590, married, 65 years on entrance February 24, 1913. Had attempted suicide, was despondent, delusions of persecution of vague character, no hallucinations. Died of carcinoma.

GROUP No. 55.

A. Female, No. 16877, married, 65 years on entrance February 21, 1907. For one year has had a loss of memory, disoriented, confused and feeble. Died of acute enteritis.

B. Female, No. 14732, 75 years on entrance May 16, 1905. Onset for two years. Condition as previous sister. Died December 15, 1909.

GROUP No. 56.

A. Female, No. 22684, single, 75 years on entrance September 7, 1916. Is feeble, defective memory, vague delusions of persecution against nurses, irrelevant, incoherent, querulous and untidy. Question of arteriosclerotic insanity or organic dementia.

B. Female, No. 22562, widow, 60 years on entrance June 21, 1916. Has active auditory hallucinations, fairly oriented, defective memory, apathetic. It is said that the onset was at 45. Delusions of persecution at that time, ideas of poisoning prominent, delusions of reference. Dementia præcox is probably the correct diagnosis in this case.

A nephew of the two sisters is at present in the institution. Diagnosis, dementia præcox.

In the following three cases, alcoholic insanity occurred in members of the same family group.

GROUP No. 57.

A. Female, No. 17937, married, 26 years on entrance September 9, 1907. Very clean-cut case of delirium tremens. Recovered quickly and was discharged October 5, 1907.

B. Female, No. 18089, single, 22 years on entrance June 7, 1908. Briefly an immoral, feeble-minded alcoholic who recovered quickly from the confusional state in which she entered.

GROUP No. 58.

A. Female, No. 15019, married, 29 years on entrance June 11, 1901. On entrance saw rats, cats, dogs and mice, conversed in a rambling manner, became well oriented, but hallucinations of hearing and sight persisted for some time, had delusions of reference which persisted for a short time and then disappeared. Discharged recovered.

B. Female, No. 15990, married, 45 years on entrance June 7, 1903. Condition similar to sister's, except that there is a preliminary stage of visual hallucinations. Acute alcoholic hallucinosis, characteristic type.

GROUP No. 59.

A. Female, No. 18853, married twice. Steady drinker for last 15 years. Short attack of confusional insanity from which she recovered completely.

B. Female, No. 18848, characteristic attack of delirium tremens. Recovered.

The following group of cases may be termed miscellaneous, in that somewhat different psychotic types were presented in the different siblings or else they are not easily classified.

GROUP No. 60.

A. Female, No. 12890, married, 56 years on entrance February 26, 1896. Past history: No education; always cheerful. Present illness began on the December before admission. Was violent, afraid of being killed, did not sleep well, had pain in the head, attempted to jump out of the window twice. In hospital, was slightly excited, had active delusions of poisoning

and persecution, auditory hallucinations, at times excited and noisy, conversation incoherent and irrelevant, active delusions, continued noisy and scolding at times. At present in hospital, demented, apathetic, still resistive and hallucinated. Though the hospital diagnosis is dementia præcox, an involution type of psychosis is perhaps more fitting as a diagnosis.

B. Male, No. 17862, widower, 65 years on entrance July 15, 1907. No previous history obtained. Said to be dull and excessively emotional at times for years. Memory impaired, tremor of fingers, hands, and facial muscles, conversation irrelevant, no insight, has visual hallucinations, delusions of persecution, is irritable, restless and very excitable. Toward end of stay became somewhat apathetic. Died October 2, 1907, of acute enteritis. Diagnosis, senile dementia.

NOTE.—There is no difference of any great importance in the two psychoses, except that the hospital incarceration occurred earlier in one case than in the other.

GROUP No. 61.

A. Male, No. 13078, single, 26 years on entrance July 15, 1890. Patient is an epileptic with short periods of restless excitement following each attack. Between attacks, quiet, somewhat demented, no hallucinations or delusions.

B. Male, No. 18507, single, 35 years on entrance December 17, 1908. Has hallucinations of sight and hearing and feelings of influence, electricity is playing on him, he gets a message by means of a "catawistica," memory impaired, disoriented and demented. In hospital at present time. Diagnosis, dementia præcox.

NOTE.—In these siblings, epilepsy with dementia præcox occurred.

GROUP No. 62.

A. Female, No. 13496, widow, 42 years on entrance June 23, 1897. Father died of heart disease, used alcohol to excess. Two sisters and one brother living. Following the death of a sister, patient became sleepless, depressed and agitated. Developed the delusion of electrical influence playing on her. Delusions of persecution directed against the neighbors. Very talkative at first, but not distractible. Repeats her sentences over and over again. She was discharged as improved in two months. Re-entered March 18, 1900, No. 14610. Was irrelevant, confused, negativistic, often quite excited, became violent and hallucinated, became demented, would not answer questions. Was discharged to Medfield March 18, 1906, where she is at present. Diagnosis here and there, dementia præcox.

B. Female, No. 20561, widow, 51 years on entrance February 15, 1913. Says a man came to her room at night and choked her. She makes signs with fingers suggesting secret orders. Her history is that she was married at 18, deserted; married again at 26; has two children, one miscarriage. For five years has been considered insane; that is, since the age of 46. Voices say the food is poisoned, restless, sleepless, thinks her son is going to be put in an electric chair. In hospital, conversation is rambling and inco-

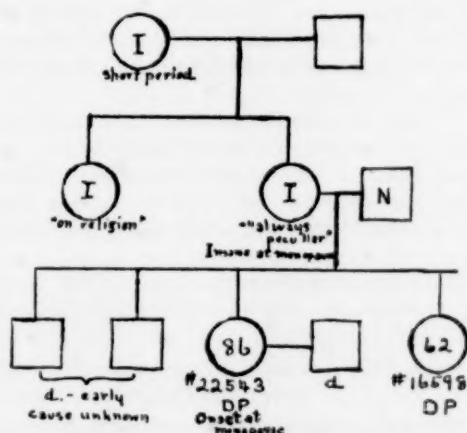
herent, says she feels sharp nails in the bed, somebody is choking her by a secret influence, is disoriented, confused, excited, memory impaired, hallucinations of hearing. No change during her stay, at times apathetic and listless, often crying, agitated and showing her restlessness. Died of cerebral hemorrhage January 28, 1915.

NOTE.—It may be stated that the two psychoses resemble each other very closely, having an onset about the same time in life with delusions of persecution, hallucinations of hearing, restlessness, agitation, and finally dementia.

Had the psychosis occurred in either of the two cases at 25, no one would have doubted the diagnosis of dementia præcox. It is one of the fallacies of modern psychiatric practice that the age of onset is given too great an importance. It is true that the same general psychotic type may have its onset at puberty, involution and senile periods and differs somewhat at each period, but the difference is not so great as, for example, occurs in lobar pneumonia at corresponding periods of life. There is a certain coloring which each period of life gives which ought not to distract one's attention from the fundamental features of the psychoses. In these two cases, I think the diagnosis of dementia præcox can certainly be made despite the fact that the first symptoms occurred at the involution period.

GROUP No. 63.

A. Female, No. 16598, 62 years on entrance October 15, 1904. Onset was at 30 with delusions of persecution, hallucinations of sight and hearing, apathetic, occasional catatonic attitudes and mannerisms. In hospital, speech was of a salad type and a letter she wrote to a relative illustrates the same phenomenon.



GROUP No. 63.

B. Female, No. 22543, widow, 86 years on entrance January 11, 1916. The onset was at the menopause. Had always been peculiar. Active symptoms developed only lately with delusions of persecution, especially in re-

gard to property. Violent at times, defective memory, confused and irritable. In hospital at present, sits around on bench, is apathetic except when disturbed, when she becomes exceedingly irritable and scolds away. Probably hallucinated, dementia profound, delusions of persecution concerning nurses.

The family history in this case is interesting. (See chart.) Maternal grandmother was insane at one time. The mother was insane for a short period at the menopause, was always peculiar, and hard to get along with. The mother's sister, an aunt, was insane "on religion." The father was normal. Of the four children born of this union, the two boys died early in life. Cause of death cannot be ascertained. The two sisters were insane; one unquestionably dementia præcox, the other developing a psychosis late in life on a fundamentally abnormal personality. Has a hospital diagnosis of senile dementia.

I see no fundamental difference in the psychoses presented by the two sisters except that one was slow in development with the main focus of incidence of disease late in life, whereas the other had the focus of incidence of symptoms earlier in life.

GROUP No. 64.

A. Male, No. 18394, married, 52 years on entrance October 27, 1908. One brother committed suicide. Patient had been worried over business troubles for some time. Became noisy, restless and depressed, had to be fed. In the hospital, negativistic, depressed and confused. Recovered quickly. While in hospital, had several short attacks of similar condition. During interim was entirely well. No hallucinations noted and no definite delusions. Left August 5, 1910, and is said to have been well since. Differential diagnosis in this case between catatonic episode and depression. The negativism and confusion incline one towards catatonia, but there is nothing in the case that definitely contradicts a diagnosis of manic-depressive insanity.

B. Male, No. 18517, single, 56 years on entrance December 26, 1908. Was always considered feeble-minded and irritable. Very eccentric, wearing an overcoat in August. Became deaf and rather helpless and was sent to this hospital. The hospital history shows nothing but very distinct feeble-mindedness, eccentricities and deafness. No hallucinations or delusions noted.

NOTE.—One sibling had psychosis which may be either catatonic or manic-depressive; the other sibling showed a distinct feeble-mindedness with, however, eccentricity in personality.

GROUP No. 65.

A. Female, No. 18854, single, 44 years on entrance August 18, 1909. Past history: She had one illegitimate child. Became deaf 12 years before admission, since which time has always heard voices in her head. Consumes a large quantity of Peruna (a patent medicine which at that time contained a good deal of alcohol).

Present illness: Brooded over the illegitimate child, very depressed, suicidal ideas prominent. On account of this was sent to the hospital. In hospital, said to have auditory hallucinations, reproaching her for the illegitimacy of her child, very depressed, discouraged, suicidal, memory was good, orientation perfect, grasp on surroundings firm. Made quick recovery and was discharged September 28, 1909. Denied that she had been hallucinated at that time.

NOTE.—The psychosis seems to have been a short depression which may be classed in the large group of manic-melancholia.

B. Female, No. 18855, married, 48 years on entrance August 18, 1909. same day as sister. Past history: Hysterectomy four or five years after marriage, at the age of 28 years. Was in the Rhode Island State Hospital at 29 for one year.

Present illness: Began to have epileptic convulsions when quite young. Typical grand mal attacks, periodic. Memory defect became prominent early. She would have periodic attacks daily for about a week, would then show impaired memory, be cross and irritable, then recover, be fairly normal for about two weeks, and then a further series of attacks would occur. This cycle has been prominent for the last three or four years. Hospital history: Orientation good, memory defective, occasional hallucinations of sight, cheerful, quiet, neat and tractable. Discharged on trial October 30, 1909. Diagnosis, epileptic insanity.

GROUP No. 66.

A. Male, No. 12252, married, 39 years on entrance July 2, 1894. Had a previous attack, when he refused food. Says he will cause trouble between the two churches, the Protestant and Catholic. Prays loudly and violently in public places, very noisy and violent at times, at others somnolent. This attack commenced with insomnia and restlessness. In hospital, confused, disconnected conversation, indecision prominent, said he did wrong by being married by a justice of the peace, his people are ashamed of him because he criticizes the churches. As he converses, he fixes his eyes upon ceiling and exultantly exclaims, "The ceiling looks bright—everything looks bright if I follow the light." Is restless, depressed, but depression relates to his delusions and hallucinations, is markedly agitated and weeps. Very symbolic: says, "They look like stars in heaven, they mean right or wrong. One tries to coax, the other to threaten. One is the Free Masons, the other the Catholic Church." On one occasion struck attendant and bit him on arm. Mood very fluctuant, at times distinctly elated, unreliable and restless. Recovered October 25, 1894.

B. Male, No. 19235, 53 years on entrance June 3, 1910. One sister insane for 10 months. One brother died of typhoid, one sister died of croup, one died of abscess. In temperament patient was always worrisome. Had a bad heart and much economic and domestic trouble, became apprehensive and worrisome, had auditory hallucinations of threatening character, be-

came very much confused and attempted suicide, refused to eat, was tube fed. Died of gastrointestinal disorder June 28, 1910.

NOTE.—The second case may be classified as an involution melacholia because of the marked agitation, the apprehensiveness, the refusal to eat, and short, fatal course. The brother's psychosis is more difficult to place. There are two distinct attacks separated by 10 years, both attacks being short, characterized on the whole by depression, agitation, the feeling of being the center of a conflict, marked symbolism and recovery. A sister also had a short psychosis, having the same general features. Very likely all the patients had the depression of manic-depressive insanity.

GROUP No. 67.

A. Female, No. 13597, single, 22 years on entrance November 3, 1897. The commitment paper says, "She puts food in the fire, runs away, assaults her mother." In hospital, very violent and destructive, masturbates openly and excessively, difficult to know whether she is reacting to hallucinations, talks rapidly but coherently. Died of exhaustion November 20, 1897; that is, 17 days after admission.

B. Male, No. 18728, married, 45 years on entrance June 12, 1909. Acute alcoholic hallucinosis. After an alcoholic debauch developed the delusion of persecution, that he was followed by detectives because of being blamed for thefts and murders. He heard voices reproaching him, became sleepless, emotional, suspicious of his food. Started to recover shortly after admission, recovered completely in seven months. Was discharged May 7, 1910. Diagnosis of the attending physicians was acute alcoholic hallucinosis.

GROUP No. 68.

A. Male, No. 16211, 43 years on entrance December 14, 1907. On admission, had a temperature of 100, pulse 74, respirations, 22. Was very active, shouting, "Glory to God," inaccessible, hallucinated. This changed to a muttering delirium. Lobar pneumonia was diagnosed and he died of the same a week after admission.

B. Male, No. 16201, 38 years on entrance December 5, 1907. History is scanty. He had been in an asylum in England two years before with a short attack. He had exactly the same symptoms as brother—was excited, restless, became delirious, had a high temperature, and lobar pneumonia was diagnosed.

NOTE.—In these two brothers, a remarkable coincidence brought them to the hospital within a week of each other with exactly the same trend of symptoms; that is, signs of lobar pneumonia, a short, excited period, and then delirium and death. In the one brother, it is stated that he had had a previous attack two years before.

GROUP No. 69.

A. Male, No. 13630, married, 42 years on entrance November 23, 1897. Past history: He has always been melancholic in disposition; used alcohol and tobacco, but only occasionally. Present illness began November 16,

1897. He thought people were following him about and talking about him, he became sleepless, had nightmares and pain in the head, became restless and threatening. Physical examination showed lively knee-jerks, tremulous hands, rather unsteady gait and station, speech thick. Hospital history: Coherent, quiet and tractable, memory good, auditory hallucinations, voices talk to him all the time, swearing and cursing. General condition improved, continued to hear voices, but he realized they were imaginary. A complete history obtained later showed that he had been drinking heavily for some time before entrance and that he was a heavy drinker rather than a moderate drinker. The diagnosis was toxic insanity. (Acute alcoholic hallucinosis.)

B. Male, No. 13781, 39 years on entrance May 6, 1898. Past history: Always cheerful, moderate user of liquor and tobacco. Became low-spirited because he was out of work. Had had a previous attack at the age of 15. Was sick seven weeks and fully recovered. Present illness began six months before admission. Came home from work tearing clothes, talked constantly about not being able to work, was troublesome to the neighbors. In hospital, a systolic murmur transmitted to the axilla was found. After a very short period he had delusions of persecution, said people in the house thought gold treasure was buried there, concealed in the cellar, and wanted him to get out so that they could get it. Electricity was worked into his head and caused it to buzz. His condition quickly changed for the better, delusions disappeared as did hallucinations. He was discharged June 1, 1898, much improved. It is possible here also that alcohol was used to excess. (There is a statement made that he had a similar attack at the age of 16 when alcohol as a cause seems unlikely.) If alcoholism in his case is admitted, then the psychoses are very similar.

GROUP No. 70.

A. Female, No. 7937, single, 22 years on entrance August 25, 1879. Unruly, destructive, violent, noisy. Always considered feeble-minded. In hospital, at first tractable, industrious and mild, jealous of other patients if nurses attended them, demonstrative toward nurses, later called herself by some other name and would not answer to her own name, irritable and quarrelsome, thinking that others were continually trying to annoy her. She was discharged August 8, 1880. Diagnosis at that time, feeble-mindedness plus a possible psychosis.

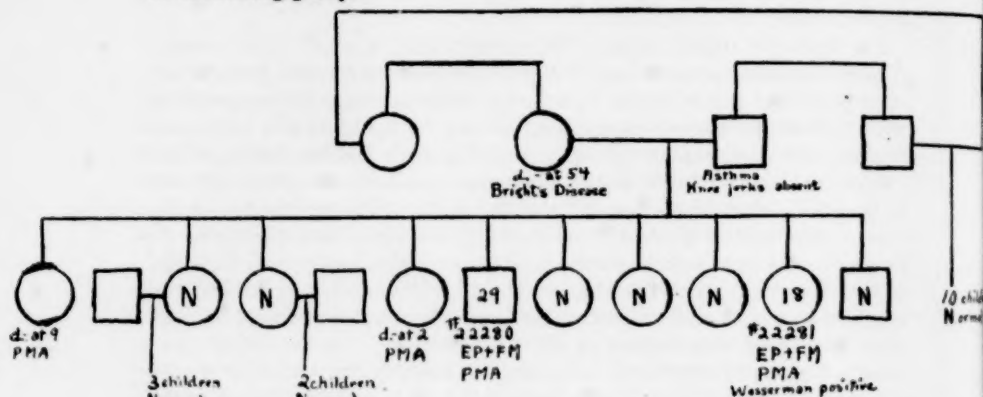
B. Female, No. 15313, single, 50 years on entrance January 21, 1902. One sister half-witted, No. 7937. Patient was considered dull as a child, got only enough education to read and write, was always nervous, excitable and easily frightened. Present illness began in September, 1901. Mind found to be weakened during the course of typhoid fever. Neuritis gradually developed. Delirious during the fever. As fever left, appeared to collapse. Visual hallucinations developed; paralysis in extremities appeared. Physical examination showed absent knee-jerks, foot drops on both sides. Forearms held in flexed position with atrophy of muscles of arms and

legs. She was confused and hallucinated. She died suddenly April 1, 1902, when some sort of pelvic tumor was discovered.

NOTE.—Both sisters were feeble-minded. One, however, developed a neuritis with a toxic psychosis during typhoid.

GROUP No. 71.

This group is cited though it really is somewhat inappropriately considered in a series of this kind, since it probably depends on factors not similar to the ordinary psychoses. However, I yield to temptation of citing an interesting group.



PMA = Progressive Muscular Atrophy

GROUP No. 71.

The family history, which was very carefully investigated, is negative so far as parents, grandparents and collateral relatives are concerned. This family history was obtained by field workers, correspondence and much careful effort. The father is alive at the age of 56, is not well because of severe attacks of asthma. Personal physical examination made of this parent reveals the fact that the knee-jerks are absent and he is somewhat unsteady in his gait. Pupils are somewhat dissimilar in size and react poorly. Wassermann taken of the blood was negative. No opportunity for a repetition was given. Mother died at the age of 54 of Bright's disease. (The family chart is appended. It will be seen that of 10 children who are known, four presented a condition similar to this one.)

A. Male, No. 22880, single, 29 years on entrance December 14, 1915. Is almost a complete idiot, has had epileptic seizures two or three times per month for many years. The physical examination shows main en griffe on the left side, and incomplete but similar condition on the right. There is marked atrophy of the muscles of the arms, especially the supraspinati and triceps. Very marked lordosis. There is complete foot drop with atrophy of the muscles of the tibialis anticus on both sides.

There is a resulting club-foot contracture. Pupils are equal, regular; react well to light and distance. Abdominal skin reflex and cremasteric very sluggish. Knee-jerks absent, plantars absent.

For a short time attempted to walk and could talk a little at the age of seven, but gradually he has lost the ability to talk so that now he can say nothing and for years has been unable to walk, becoming more and more helpless all the time.

It is stated by the parent that this condition developed gradually and has been growing worse until the care of this patient and his sister, whose history follows, became impossible at home. He died following a general infection, apparently resulting from a skin wound.

B. Female, No. 22281, single, 18 years on entrance December 14, 1915. At present in hospital. History was exactly that of her brother, except that she learned to walk and talk somewhat better than he did. Epileptic attacks were more marked in her case.

It is now learned that the father's younger brother married a sister of his wife so that the same stock entered into this brother's children as did into the family under consideration. Of the 10 children resulting from this union, all lived, none were feeble-minded, insane or defective in any way. Several are married and have children who show no similar defect.

Physical examination of this patient showed practically the same condition as did the brother. There is, however, in this case positive Babinski on the right side, a positive Gordon on this side. Left side shows neither Gordon nor Babinski. Oppenheim is negative on both sides, knee-jerks and ankle-jerks missing. On January 10, 1916, blood serum gave positive reaction to the Wassermann test for syphilis. (Test performed in State Laboratory, Boston.) February 3, 1916, blood serum gave a negative reaction to the Wassermann test for syphilis; and February 17, a doubtful reaction to the Wassermann test for syphilis—all tests being performed in the same place. January 21, 1916, spinal fluid entirely negative to albumen, globulin, cells and Wassermann. A more detailed examination of this patient was made. The supra- and infraspinati are decidedly atrophied. Small muscles of hand, especially interossei and muscles of hypothenar eminence are atrophied. Hand is held in a constant claw position with ulnar deviation with some ankylosis at the wrist joint. The feet are in a marked position of foot drop also pes talipes. The small toes, and to a lesser degree the large toes, are sharply flexed downward. There is atrophy of the extensor group of muscles and the tibialis anticus. Facial muscles apparently intact. Bulbar muscles intact. Skin and tendon reflexes everywhere absent. Patient cannot talk and seemingly understands nothing.

On March 2, 1916, spinal fluid repeated, negative reaction to the Wassermann test for syphilis. Blood serum at this time gives doubtful reaction to the Wassermann test for syphilis.

NOTE.—The interesting thing in this group lies in the fact that what seems to be a familial, progressive, muscular atrophy is found in four members

out of nine. Two have been closely observed, one being in the hospital at the present time. All the relatives, except in the immediate family, are healthy. *A rather interesting biological experiment was carried out when the brother of the father and a sister of the mother married and had 10 healthy children. This would seem to rule out any distinctly hereditary factor in the sense of a disturbance of gametes or anything of that kind. Some disease process has crept in, damaging the progeny.* This is borne out by the physical examination of the father, and syphilis is strongly suspected in his case. One Wassermann test on one of the two children in the hospital (the only one examined in this way) was positive, but several repetitions have been either negative or doubtful, the spinal fluid being doubtful. Nothing further can be stated concerning this case, except that idiocy and familial progressive muscular atrophy are rarely found together. In this case there is undoubtedly organic brain disease as well as organic cord disease.

The following three cases are given in some detail because conditions presented are interesting, details are abundant, and they have a special interest aside from the diagnosis in each individual case:

GROUP No. 72.

A. Female, No. 8554, married, 40 years on entrance May 9, 1882. Family history not obtained at this time. "Patient lost three children within 10 days and has been breaking down in mind ever since." Incoherent, believes that her children appear to her and talk with her, excited at times, generally depressed, weeps a great deal. In hospital, usually very mild and quiet, quite apprehensive, fears harm to self, fears she is to be cut up by surgeons, much depressed, inclined to lie about on the sofa without working. Gradually improved, became more cheerful, cried less, worked more, and was discharged February 18, 1885.

A recent history which has been obtained states that she has been quite well most of the time since. Carried on her household work, always rather nervous and easily depressed, but no active mental symptoms, no dementia.

B. Female, No. 14199, married, 37 years on entrance June 14, 1899. In disposition, always nervous, easily frightened. Ordinary mental ability. Three months before she was sick, experienced a burning sensation in side and flowed profusely. Attended by physician and sent to hospital where she had curettage. Flowed for three months continuously. After operation, began to talk queerly, saying that she was dying, cried nearly all the time, lost interest in and all love for her children and home, became untidy, heard people talking about her, sat around without working, complained of severe headaches, threatened suicide, and on several occasions made desperate efforts to end her life.

Physical examination in hospital negative. Mental examination showed depression, restlessness, agitation, no memory defect. Talked about recent operation continuously. No hallucinations of sight or hearing. Shortly after entrance started to improve and on June 16, was discharged, recovered.

Re-entered the hospital November 2, 1909, age 52 years. Had been well in interim. Two months before admission, a fly flew into her ear. A

doctor syringed out the ear, informant thought he syringed it too long. Began to show signs of mental trouble. She became nervous, restless, would not take nourishment, had spells of laughing and crying, became markedly apprehensive, was afraid to eat, generally much depressed. Physical examination negative. On entrance, memory good, no hallucinations noted, restless, excitable and emotionally agitated, cries a good deal, reveals no definite delusions. As before, improved and was discharged April 20, 1910, recovered.

C. Female, No. 23141, married, 62 years on entrance July 12, 1917. Family history obtained at this time shows the following: Father and mother said to be well. A maternal first and second cousin in this institution. Of the brothers and sisters of this patient, two sisters were in the hospital, a brother died of tuberculosis at the age of 14, one sister is alive at 70. Patient suffered with severe vomiting during each of her 10 pregnancies. A year ago she had an attack of grip, complained of pain in the left shoulder, which was diagnosed by some neurologists as neuritis. Following this, she began to lose weight gradually, appetite became poor, has lately become restless, talkative and complaining, threatening at times, but generally very much depressed. Talked suicide. Because of this, she was committed to the hospital.

Physical examination showed a rather worn-down, old woman.

Mental examination shows simply an anxious, restless woman, who is well oriented as to time, place and person, has good memory for recent and remote events, no hallucinations, no definite delusions elicited, flow of thought somewhat irrelevant and incoherent, at times she appears slightly confused. On the whole, pleasant and tractable.

NOTE.—The three individuals have practically the same history. Following some disturbance—as in the first patient, the loss of three children; in the second and third, sickness—there follows a disturbed, apprehensive, agitated mental state which is very troublesome to those around them, but which passes quickly away. In a sense, it is a symptomatic psychosis. It resembles the emotional reaction of normal individuals to similar circumstances, except that it is exaggerated and prolonged. The reaction will be discussed further in this paper. The condition does not belong to dementia præcox and perhaps may be called agitated depression of manic-depressive insanity. The two cousins, who are uncle and niece, were both dementia præcox.

GROUP No. 73.

A. Male, No. 8052, married, 36 years on entrance April 15, 1880. One maternal uncle, No. 1199, in this institution. Diagnosis, acute melancholia.

Patient's early life is said to have been normal, always easily depressed and excited. Onset of this psychosis sudden. Threatened to kill his wife, was noisy, running wildly about the streets. Was finally secured, almost naked. Confused, incoherent, noisy and destructive. This lasted for three months when he gradually quieted down into a stupid, apparently demented, state, seldom speaking and avoiding interviews, rather resistive. No hallucinations or delusions elicited. He slowly emerged from this and during the last two months of his stay improved to the point of recovery.

Re-admitted, No. 17017, 63 years on entrance September 13, 1915. Was well in interim except a year before entrance when he left his home with \$200, spent his money freely, went to New York and walked the whole length of Long Island. Was very active, felt too buoyant, felt himself exalted above other men. This attack commenced suddenly. He threatened to kill several persons, thought he must kill seven men before he died, attempted a criminal assault on his daughter just before entrance. Excitement lasted only a few days. Thereafter, he was slightly exhilarated, talked freely, but showed no undue verbosity. Orientation good, memory good.

February 14, he says he has a new tooth coming at his age of life. Says, "I can go to bed and wake up any time I want to. At one time I needed a dollar and I wanted to wake at a certain hour. I was very sleepy, but suddenly I heard a rap. That showed me what the Almighty could do. Those raps were a warning. I buried my wife a short time after that." He was fault-finding, somewhat irritable, but gave expression to no delusions or hallucinations. Showed no dementia. February 1, 1907, was discharged to the State Board of Insanity, condition not improved. He seems to have settled down from an exhilarated state to a seclusive, rather aggressive, suspicious mental condition without noticeable dementia or distinct hallucinations or delusions, although both these were suspected.

B. Male, No. 8186, married, 28 years on entrance November 30, 1880. Eight years ago after sunstroke was insane. Was violent and dangerous, showed religious excitement, temperate, became excited, dictatorial, said his wife was underground, and that she was dead, ordered people out of the house under threat to kill, walked about the streets wildly, knelt in the mud and prayed. Obstinate and resistive on entrance.

In hospital, quickly became quiet and at time of discharge, August 31, 1885, showed no active symptoms.

C. Female, No. 13626, widowed, 47 years on entrance November 22, 1897.

A family history was now obtained. The father died of cancer of the stomach. Mother died of old age. This patient had five brothers and sisters. One is insane and blind at home, one committed suicide. Two brothers considered above. One sister, patient in this institution. It is stated that father was insane at times for short periods.

Patient always melancholic in disposition. Showed signs of mental change at death of her first husband, 16½ years ago. At that time had visions and threatened to drown herself. She became hyperreligious, excited, took no care of her home.

In hospital, says she became converted when in her teens. Was overwhelmed with the sense of sin when suddenly the room was filled with a light, visible and yet invisible, and she felt the Peace of God fill her heart. Since then she has frequently heard the voices of relatives who are dead talking to her and telling her what to do. She has had warnings, these voices telling her not to do certain things. In hospital, showed evidence of hallucinations and delusions of a religious character. She recently complained that the night watchman injured her by administering certain gases and that these produced a peculiar effect on her. Incoherent and

irrelevant in answers. Throughout her stay she showed talkativeness, restlessness, apparent hallucinations of sight and hearing, mild delusions of persecution, and delusions of an exalted, religious nature. At times showed marked flight of ideas. She was discharged August 17, 1904, as a boarding-out patient, there being no particular change in her condition.

She was returned from boarding out, and shortly after re-entrance had a cerebral hemorrhage involving the right side. Died December 3, 1908, having been in a paralyzed state from the time of the first hemorrhage.

D. Female, No. 8075, married, 23 years on entrance May 17, 1880. "Usually mild in character, but violent if opposed. Suicidal, has beat her head against the wall, wants to go to the water. Said to have times of excitement, when she is dangerous to those about her." Excitement shortly passed away and she became dull, listless and somewhat depressed. Condition began to improve shortly after that and she was discharged as recovered October 11, 1880.

NOTE.—The first of these patients, after an attack which seems to have been manic, settled down to a chronic condition which in certain respects resembles dementia præcox. The second had an acute excitement which may have been either catatonic or excited phase of manic-depressive. The third patient was diagnosed as dementia præcox by the hospital staff and distinct paranoid ideas with hallucinations and delusions, the chronic condition in general seems to favor that diagnosis despite the flight of ideas that occurred at times. Therefore, there is to be considered here the occurrence of manic-depressive and dementia præcox in the same sibling group. I myself am not satisfied with either the data presented or the place in the classification to which this patient belonged.

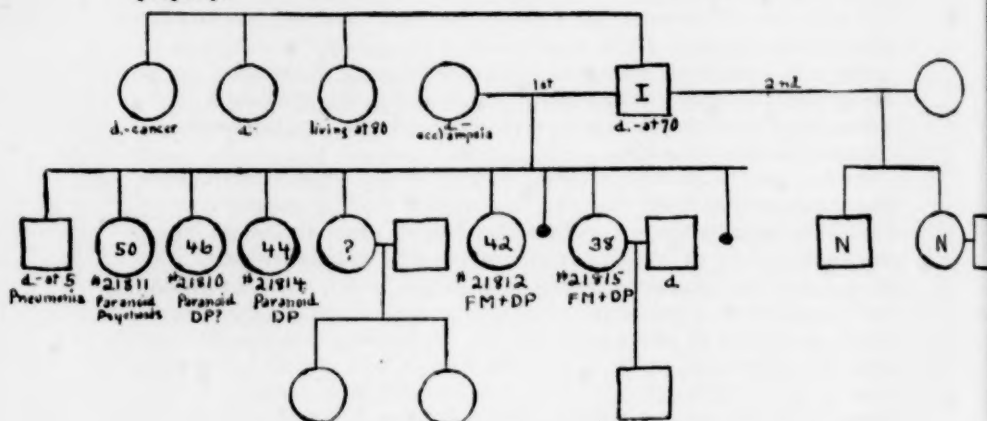
GROUP No. 74.

This family, which has been described at length by Dr. John F. O'Brien of this staff in papers read before the Boston Society of Psychiatry and Neurology and the New England Society of Psychiatry and which will be published by him in detail shortly, is here given because it shows a sort of transition from one type of psychosis to another.

Family history is here given for all the members of the family. Mother died of eclampsia, following childbirth. Father died at the age of 70. For the last two years of his life he was insane and shared the delusions of his daughters. There were born to this couple nine children. A boy died of pneumonia at the age of five. The next two were dead when born, as a result of difficult labors, both being boys. Of the next six, all females, five were brought to this institution. The sixth daughter was interviewed, was suspicious, uncommunicative, and refused to commit herself concerning any beliefs she shared with her incarcerated sisters. Following Dr. O'Brien's presentation, it may be stated that there is a transition of symptoms from the oldest to the youngest.

A. Female, No. 21811, single, 50 years on entrance January 11, 1915. Early life was uneventful. Received a good education and was bright in school. Following her mother's death, the father remarried. All of the daughters were bitterly opposed to the stepmother and made life very

unpleasant for her. Some property was left them, and around this property the main delusions center. They believed that a gang of conspirators, including the prominent men of the city, the Catholic Church (they are Catholics), lawyers and doctors, town officials, the police department, etc., have attempted to make the property undesirable by persecuting the owners of it, these sisters. The means they have used have been noises, gases, animals of all kinds, electrical influences, sexual attempts, etc., all with the idea of making life so unpleasant that the sisters would sell the property.



GROUP No. 74.

This patient is oriented, coherent, generally pleasant, a good worker, no dementia. Her delusions are systematized and hallucinations have been either very fleeting or not at all prominent. Bodily health good. Emotional tone pleasant.

B. No. 21811, single, 46 years on entrance January 11, 1915. Patient shares the same delusions as the sister. They are not quite so coherently expressed, a little less systematized. Hallucinations of hearing and of smell have been rather more prominent in her case. She is not such a good worker, but is not demented. Fairly pleasant.

C. No. 21814, single, 44 years on entrance January 18, 1915. Patient is more poorly built than her sisters, not so bright, delusions are widespread, incoherent, hallucinations of sight, hearing, and smell of the most fantastic kind are very prominent. She is of a very ugly temper, and when out on a short visit she shot and killed the police officer who was attempting to bring her back. She will not work, is resistive, very evidently is of lesser mental caliber than her sisters and is probably showing beginning dementia.

D. Female, No. 21812, single, 42 years on entrance. Patient is much demented. No hallucinations or delusions can be elicited. She is apathetic, indifferent, talks in a whisper, never been outside of her own home, has not the slightest memory of any educational facts, disoriented as to environ-

ment. The history is that she has been feeble-minded from the start. From her 22d year she has rapidly deteriorated and become more and more seclusive.

E. Female, No. 21815, widow, 38 years on entrance. This patient has always been considered somewhat feeble-minded. Shares the delusions of her sisters, but expresses them in an extremely incoherent manner, is very quiet, retarded, shows either dementia or past feeble-mindedness, eats poorly. Has the habit of placing papers, handkerchiefs and various other articles in the front of her waist, is untidy and very seclusive. During her stay in the hospital she has deteriorated rapidly. At present is demented.

NOTE.—These five sisters show a transition in psychotic type. The first patient may be called a *paranoia vera* or *paraphrenia systematica*. The second patient is possibly the same. The entrance of hallucinations of fantastic character would make most clinicians feel that paranoid dementia *præcox* was to be considered. The third patient is undoubtedly a paranoid dementia *præcox*. The fourth and fifth are dementia *præcox*, dementing, with delusions and hallucinations either disappeared or rapidly disappearing in the breaking up of the mentality. It is interesting to note that the father was insane in the last two years of his life, having a somewhat similar psychosis to his daughters. There is, therefore, in the second generation anticipation, increase in mental symptoms, with what appears to be a transition in the type of psychosis presented from one sibling to another.

In the previous paper it was stated that paranoid diseases in an ancestor stand related to paranoid dementia *præcox* and to dementia *præcox* in the descendant. It may also be true that true *paranoia* stands biologically related to paranoid dementia *præcox* in the same generation.

BRIEF ANALYSIS OF ABOVE CASES.

As has been stated in the previous paper, statistics that relate to only a small number of cases have only a limited value and it is carrying a study to a ridiculous fineness when one attempts to make percentages of such statistics. All one can do is to discover trends and point out directions. The following table indicates first, the sexes of the siblings involved; second, the incidence of feeble-mindedness in conjunction with the other psychoses, that is, feeble-mindedness occurring together with some other mental condition in the patients presented; and, third, the incidence of insanity in the ancestors. It is to be emphasized that a positive history of insanity occurring in an ancestor is to be credited as true. A negative history, a denial, or a claim of non-existence of insanity means nothing. In this respect the history of insanity in a family may be classed with the Wassermann reaction. When positive, this means, in the overwhelming majority of cases, syphilis. When negative, it does not exclude syphilis.

GROUP NO. I.

THOSE IN WHICH DEMENTIA PRÆCOX IS DIAGNOSED IN ALL MEMBERS OF THE
FRATERNITY IN THE HOSPITAL.

Family No.	Sex.	Occurrence of feeble- mindedness.	Insanity in ancestor.
1.	2 sisters	1	Gross defect in mother.
2.	2 sisters .....	..	Paternal side.
3.	1 sister, 1 brother	1	.....
4.	1 sister, 1 brother	1	.....
5.	2 sisters	2	.....
6.	1 sister, 1 brother .....	..	.....
7.	1 sister, 1 brother .....	..	.....
8.	1 sister, 1 brother .....	..	.....
9.	1 sister, 1 brother	2	Maternal side.
10.	2 brothers .....	..	.....
11.	1 sister, 1 brother .....	..	.....
12.	2 brothers	1	Maternal side.
13.	1 sister, 1 brother	1	.....
14.	1 sister, 1 brother .....	..	.....
15.	2 sisters	2	.....
16.	2 brothers .....	..	.....
17.	1 sister, 2 brothers	1	Maternal and paternal side.
18.	2 sisters .....	..	.....
19.	2 brothers .....	..	Maternal side.
20.	2 sisters .....	..	.....
21.	2 brothers .....	..	Paternal side.
22.	1 sister, 1 brother .....	..	.....
23.	1 sister, 2 brothers	1	.....
24.	2 sisters, 1 brother .....	..	.....
25.	1 sister, 1 brother .....	..	.....
26.	1 sister, 2 brothers	3	Maternal side.
27.	1 sister, 1 brother .....	..	.....
28.	1 sister, 1 brother .....	..	Paternal side.
29.	2 sisters .....	..	Paternal side.
30.	1 sister, 1 brother	1	Maternal side.
31.	2 sisters .....	..	.....
32.	1 sister, 1 brother	2	.....
33.	1 sister, 2 brothers	3	Paternal side.
34.	2 brothers	1	Paternal and maternal side.
35.	1 sister, 2 brothers	2	Maternal side.
36.	2 sisters, 3 brothers .....	..	Paternal (?) and maternal (?) side.
37.	3 sisters, 1 brother .....	..	.....
38.	2 sisters .....	..	.....
39.	1 sister, 2 brothers .....	..	Maternal side.
40.	1 sister, 1 brother .....	..	.....
41.	2 sisters, 1 brother .....	..	.....
42.	2 sisters, 1 brother .....	..	.....
43.	1 sister, 1 brother	2	.....
44.	2 sisters .....	..	Paternal side.
45.	2 brothers	1	.....

THOSE IN WHICH MANIC-DEPRESSIVE INSANITY IS DIAGNOSED IN ALL MEMBERS
OF THE FRATERNITY.

Family No.	Sex.	Occurrence of feeble- mindedness.	Insanity in ancestor.
46.	2 sisters .....	..	.....
47.	1 sister, 1 brother	1*	.....
48.	2 sisters .....	..	.....
49.	2 sisters .....	..	Paternal side.
50.	1 sister, 1 brother .....	..	.....
51.	2 sisters .....	..	.....
52.	4 sisters .....	..	Paternal side.

* Epileptic.

THOSE IN WHICH SENILE DEMENTIA IS DIAGNOSED IN ALL MEMBERS OF THE
FRATERNITY.

Family No.	Sex.	Occurrence of feeble- mindedness.	Insanity in ancestor.
53.	2 sisters .....	..	.....
54.	2 sisters .....	..	.....
55.	2 sisters .....	..	.....
56.	2 sisters .....	..	.....

THOSE IN WHICH ALCOHOLIC INSANITY IS DIAGNOSED IN ALL MEMBERS OF THE
FRATERNITY.

Family No.	Sex.	Occurrence of feeble- mindedness.	Insanity in ancestor.
57.	2 sisters	1	.....
58.	2 sisters .....	..	.....
59.	2 sisters .....	..	.....

* MISCELLANEOUS CASES.

Family No.	Sex.	Occurrence of feeble- mindedness.	Insanity in ancestor.
60.	1 sister, 1 brother .....	..	.....
61.	2 brothers	1*	.....
62.	2 sisters .....	..	.....
63.	2 sisters .....	..	Maternal side.
64.	2 sisters	1	.....
65.	2 sisters	1*	.....
66.	1 sister, 1 brother .....	..	.....
67.	1 sister, 1 brother .....	..	.....
68.	2 brothers .....	..	.....
69.	2 brothers .....	..	.....
70.	2 sisters	2	.....
71.	1 sister, 1 brother	2	.....

* Epileptic.

SPECIAL CASES.

Family No.	Sex.	Occurrence of feeble- mindedness.	Insanity in ancestor.
72.	3 sisters .....	..	Maternal side.
73.	2 sisters, 2 brothers	1	Maternal side.
74.	5 sisters	2	Paternal side.

Group No. 1.—As evident from above, the males and females are about equally represented. Feeble-mindedness occurred 18 times in one or both members of the groups presented. That is to say, prior to the development of the psychosis, feeble-mindedness, was a condition noteworthy enough to be given in a routine history taken at the hospital. Undoubtedly higher grades of feeble-mindedness, what is nowadays called the moron type, occurred frequently. At any rate, it is worth noting that in cases where dementia præcox occurs in several members of one generation, feeble-mindedness as a basis for the development of the psychosis or as a coincidence is common. This is a decided contradiction to the opinion expressed by Singer in a late paper in which he emphasizes his belief that the two conditions mentioned rarely coincide. It is in accord with the opinion expressed in my own paper, previously cited, in which it is believed that dementia præcox in an ancestor tends toward feeble-mindedness in a descendant, so that feeble-mindedness and præcox are related rather than unrelated conditions.

Concerning the inheritance of insanity in these cases, that is, the occurrence of insanity in a direct or indirect ancestor, we have only the histories taken at the hospital as guide. Undoubtedly the amount of inherited mental disease is far greater than noted. Insanity of a type so prominent that it was given in the history occurred 20 times, or in nearly 50 per cent of the cases. My experience with histories taken in routine manner, in which merely the question is asked, "Was there insanity in the patient's family?", and the answer given is accepted as final, leads me to the belief that nearly twice this amount of insanity could be unearthed by a searching examination.

Group No. 2.—The preponderance of sex was very greatly female. With so small a group of cases, however, no great stress should be laid on this fact. Feeble-mindedness occurred only once amongst these manics and then in the case of a feeble-minded epileptic boy. It would seem that feeble-mindedness occurs rarely coincidental with manic-depressive insanity, whereas it occurs commonly with family dementia præcox.

Group No. 3.—In the four families here adduced, the sex was altogether female. No feeble-mindedness was given in the history and the inheritance of insanity was not manifested.

Group No. 4.—Alcoholism. Three families, all females, one feeble-minded. History of insanity is not conspicuous.

Group No. 5.—Miscellaneous group. Twelve families, the preponderance of sex slightly in favor of females. Epilepsy occurred twice in conjunction with the psychoses. Feeble-mindedness occurred three times in conjunction with the psychoses. The inheritance of insanity is given only in one case which, of course, is obviously a gross under-statement.

Group No. 6.—Special cases. Three families, more females. Feeble-mindedness occurred twice in one family (dementia præcox as well). Inheritance of insanity in all three families which happen to have been closely studied.

If now we discuss the definite question, do the psychoses of brothers and sisters tend to be alike?, we find that by far the greater number of the authors and the cases here cited are in agreement. The general conclusion may be stated as follows: In by far the great majority of cases, the psychoses in brothers and sisters tend to be the same. So far as I know, only one author, Sioli, is in disagreement with this statement. All the authors, who have been cited at more length in the previous paper, agree, though the percentages of similarity in siblings differ.

Of the Taunton cases, the psychoses are essentially similar in all except the following cases: In case No. 11, in which one of the patients had general paresis. This cannot be cited as a dissimilar psychosis because general paresis and the ordinary organic brain diseases, such as tumor of the brain, cerebral hemorrhage, etc., are biologically very distinct from the psychoses that we have been considering. I have several cases in which dementia præcox or other "endogenous" disease occurs with general paresis. Case No. 25, here possibly true paranoia occurs with dementia præcox. I regard true paranoia as closely allied with dementia præcox for reasons which appear in the previous paper and which will be discussed somewhat under that portion of this paper which deals with the working hypothesis. Case No. 74 seems to show a direct transition from paranoia vera to paranoid dementia præcox, dementia præcox and feeble-mindedness. Cases Nos. 53, 54, and 56 are doubtful. In case No. 61, epilepsy occurs together with dementia præcox. No. 64 is doubtful. In No. 65, one

of the siblings had epilepsy, the other manic-depressive insanity. It may be pertinent to remark at this point that epilepsy occurs with normality, with dementia præcox, with manic-depressive insanity; and in case No. 7, an epileptic seems to have episodes of manic-depressive insanity much like his sister, whose case is uncomplicated manic-depressive insanity. Whether "idiopathic" epilepsy belongs together with the "endogenous" psychoses or whether it is something biologically different, this paper cannot be said to determine. It is my impression that true epilepsy belongs fundamentally to a different group of things than either manic-depressive insanity or dementia præcox. In case No. 73, it may be seen that manic-depressive and dementia præcox occurred in different members of the same sibling group. In No. 74, as has been stated above, there is a transition from paranoid condition, which strongly resembles true paranoia, to paranoid dementia præcox and dementia præcox with feeble-mindedness.

PART II.

The occurrence of both manic-depressive and dementia præcox in a group of brothers and sisters is at present a vexed question. That a parent having manic-depressive insanity may give issue to dementia præcox children seems to be established, but that a parent having dementia præcox may give issue to manic-depressive children seems to be an exceptional occurrence. (See my previously cited paper for statistics.) For the horizontal occurrence of dementia præcox and manic-depressive, that is, in the same generation, there are conflicting results due largely, I believe, to the varied criteria of diagnosis and to the unsettled state of psychiatric classification in general. Practically all men diagnose by rule of thumb. One or two symptoms settle the case. Hallucinations, if prominent, rule out manic-depressive for some diagnosticians. Flight of ideas rule out dementia præcox for others. Recovery or alternation of excited and depressed periods, negativism, apathy, all these symptoms which are critical for the diagnosis in the opinion of the average hospital worker are not simple matters, and mistakes occur so frequently as to invalidate far-reaching conclusions.

A very interesting side-light on this matter is found in Bancroft's statistics on the relative frequency of the diagnosis of

dementia præcox and manic-depressive insanity in various well-organized American hospitals. I hereby append his table, but add to it, as a last column, the percentage relationship of manic-depressive to dementia præcox as made up from his cited figures.

Hospital.	Year.	Aggregate admitted.	Manic- dep.	Præcox.	Per cent M. D. to D. P.
Westborough State Hospital, Mass.	1910	491	120	121	100
Westborough State Hospital, Mass.	1912	494	115	124	92
Worcester State Hospital, Mass.	1910	568	72	194	39
Worcester State Hospital, Mass.	1912	486	77	145	53
Danvers State Hospital, Mass.	1911	573	73	150	48
Danvers State Hospital, Mass.	1912	505	92	99	93
Northampton State Hospital, Mass.	1910	330	56	66	85
Northampton State Hospital, Mass.	1912	334	57	64	88
Boston State Hospital, Mass.	1911	433	78	71	109
Boston State Hospital, Mass.	1912	651	108	97	110
Taunton State Hospital, Mass.	1911	408	37	106	35
Taunton State Hospital, Mass.	1912	520	48	172	28
Bangor State Hospital, Maine.	1912	183	23	28	82
Augusta State Hospital, Maine.	1912	270	55	45	122
New Hampshire State Hospital, N. H.	1911	301	56	42	133
New Hampshire State Hospital, N. H.	1912	327	65	52	125

In New York state the per cent distribution of manic-depressive insanity and dementia præcox in all hospitals was in

1911 manic-depressive, 11.2; dementia præcox, 16.0.	70%
1912 manic-depressive, 11.5; dementia præcox, 16.0.	71%

In the Boston, Augusta, and New Hampshire state hospitals there were fewer præcox cases; in all other hospitals cited, the præcox cases exceeded the manic-depressive, and in some cases the excess was over 30 per cent. The statistical variations are of such wide range as to render definite interpretation quite impossible.

With such an extraordinary variation ranging for the very low figures for manic-depressive insanity as diagnosed in the Taunton State Hospital, 35 per cent and 28 per cent, to the very high figures of Boston State Hospital, 109 per cent and 110 per cent, the doubt of Bancroft who wonders, "Whether the mood of the diagnostician is not reflected in the result," is too mild. It is not the mood of the diagnostician that varies so much as the diagnostic criteria of the institution. Taunton, Westboro, Worcester, Danvers, Boston and Northampton State Hospitals are all in the

State of Massachusetts, within a narrow radius of much less than 100 miles, and it is impossible that their material differs so widely as the figures would indicate.

As stated previously, one of the essential differences lies in the belief that catatonic episodes belong to dementia præcox, and the difficulty of differentiation between a catatonic episode and manic-depressive insanity. A very interesting paper by Stöcker is entitled (translation), "Are There Fundamental Differences Between a Catatonic Stupor and an Excitement on the One Hand and a Depressive Stupor and Manic Excitement on the Other and In What Does This Consist?"

To answer this self-imposed question he carries on a long comparison in parallel columns of the symptoms of catatonia and manic-depressive insanity as taken from Kraepelin's text-book. The summing up of his comparison is that the symptoms and signs in the one disease are outwardly exceedingly like those of the other, and, in fact, that an identical process is taking place, and that the difference lies in the essential original character of the catatonic and the manic. For him, as for Kraepelin, the essential defect in catatonia is the intrapsychic ataxia of Stransky, and this manifests itself in the symptoms, especially in the conduct and speech which are without goal or plan and are dissociated from the emotions, the intellect, and the will. Whereas a relationship can be detected in manic states between conduct, speech, emotions, intellect and will. *But it becomes obvious as one reads, even if one had no personal clinical experience, that the differentiation is very difficult, at times impossible, and rests on a refinement of observation and interpretation possible only for a few men.* Indeed, one wonders whether there is such a difference fundamentally, whether every psychosis is not a dissociation, whether the acute depression or excitement of a manic is not the result of a mood or emotion almost entirely divorced from intellect, from the perception of relation; in short, whether an intrapsychic ataxia does not exist in a manic-depressive as well as in a catatonic.

(Here one may pause to state that there is no very essential difference between the intrapsychic ataxia of Stransky, the schizophrenia of Bleuler, and the psychic fragmentation or inner splitting of Urstein. Nor is there logic in grouping together in a

disease entity, as each of these authors has done, those cases where such change may be found. Inflammation as a general process is found in tuberculosis, syphilis, lobar pneumonia, wound infection, etc., but we know that these are separate diseases. Similarly, the existence of schizophrenia, inner splitting, intrapsychic ataxia in very different appearing diseases does not link these cases together as belonging to the same clinical entity. The relationship may be as general as inflammation itself.)

Returning now to the subject at hand, namely, whether or not manic-depressive and dementia præcox occur in the same sibling group, different opinions are expressed in the literature. Because of the difficulties which I have outlined above, I feel that it is not incumbent on me to review the entire literature. I have selected five groups of material for consideration as bearing upon the problem.

1st. The material of the Massachusetts State Hospitals. In reply to my inquiries as to whether or not manic-depressive and dementia præcox occur in the same sibling group, in their cases Danvers, Boston, Westboro, Medfield and Gardner State Hospitals reply in the negative. Worcester State Hospital reported one case occurring in two sisters. Of these sisters, one seems to be a clean-cut dementia præcox with gradual onset, depressive in character, then the later development of hallucinations, delusions of persecution, final apathy and dementia. The second sister, whose condition is diagnosed as manic-depressive, seems to have symptoms warranting that diagnosis from the abstract submitted to me. Northampton State Hospital reported 10 such mixed groups. It is noteworthy that this hospital makes a diagnosis of manic-depressive nearly as frequently (90 per cent) as it makes the diagnosis of dementia præcox. Moreover, most of the cases so diagnosed occur in the earlier days of the Kraepelinian scheme when recoverability and periodic insanity classified a case as manic-depressive insanity. I have not seen the abstracts of the cases from this hospital and so am unable to state further concerning them.

2d. Krueger's cases. Among siblings he reports only one family, No. 37, showing the union of dementia præcox and manic-depressive in two sisters. He states that the natural disposition of the sister, diagnosed as manic-depressive insanity, was obstinate

and irritable. Moreover, this patient has been continuously in the institution. Certainly it can be stated that even from the abstract submitted in his paper, a doubt as to the typical nature of the psychosis is legitimate.

3d. Luther's cases. Luther reports a large number of such cases; namely 11, from family group No. 82 to family group No. 92 inclusive. Of these groups, in the case diagnosed as manic-depressive in family group No. 85, alcoholic neuritis was present. Similarly, in No. 89 the original diagnosis in the manic case was hallucinatory paranoia. In No. 91, lues cerebri was the original diagnosis. In No. 92, alcoholic psychosis was entertained as a diagnosis and seems certainly to have been warranted. In seven other cases it seems to me that atypical conditions difficult to diagnose were considered to be manic-depressive for lack of a better term.

4th. Schlub's material. He describes 65 families which, however, seem to have been collected from the literature rather than from his own experience or hospital material. Of these, there were 31 dementia præcox families, 17 manic-depressive families, and 12 families in which manic-depressive and dementia præcox occurred. Without going into detail concerning these 12 families, it may be stated that the diagnosis seems distinctly forced in many cases.

5th. Riebeth's material. Riebeth found dementia præcox throughout a family group in 40 cases, manic-depressive throughout a group in eight cases, dementia præcox and idiocy four times, dementia præcox and epilepsy four times, dementia præcox and senile psychosis twice, scattering diagnoses in 12 families, and 14 groups in which the question of manic-depressive and dementia præcox occurring together had been considered. After studying these cases thoroughly Riebeth finds only three groups in which the possibility can be considered, and these are not clear cases. In other words, Riebeth is of the opinion that the combination occurs but seldom if at all, whereas dementia præcox is apparently related to feeble-mindedness, idiocy and senile dementia.

I feel that it would be assuming too much to state that the two psychoses do not occur together in the same family group. On the whole, there seems to be evidence that they do occur. This

occurrence, however, is exceptional and I am of the opinion that a typical præcox and typical manic do not occur together. One incurs the reproach that typical cases are exceptional anyway. This I deny in the case of dementia præcox. Typical cases of dementia præcox are very common; typical cases of manic are less common, but occur. It is in the consideration of atypical manic cases around which the debate centers.

PART III.

In Psychiatric Family Studies, I said that a fertile method of work, one that would bring results of a significant kind in our quest for the facts concerning the transmission of mental diseases, would be a detailed account of families, in which insanity had occurred, by psychiatrists *socially intimate* with such families. For it must be obvious to any one that if a field worker or psychiatrist were to investigate *his* family he could learn only the outstanding facts of conduct. Nothing at all would be learned of the *intimate* conduct and, of course, nothing could be learned of the inner life that is not definitely expressed in conduct—of the temptations, the struggles between inhibitions and desires, the doubts, obsessions, prejudices and fears, the asocial and anti-social wells of feeling. It is precisely these facts, in my belief, that bridge over the gaps in our knowledge; it is these facts which explain the transition from the supposedly normal father, mother, brother and sister to the insane patient. Even to them he seems like a person from another world—something alien—yet I shall maintain, at least for a working hypothesis, that no unexplainable breach has occurred.

This means, of course, that Mendelian inheritance and all forms of qualitative inheritance cannot be invoked to explain the facts of the inheritance, or, as I prefer to say, the transmission of mental disease. I have discussed this very briefly in the previous paper. The argument against Mendelian inheritance in the psychoses can be stated as follows:

1st. It presupposes that mankind can be divided into two groups—the normal and neuropathic (following Davenport and his school). The difference between the two is that the neuropathic are minus a unit determiner or unit group of determiners

which brings about normality. The neuropathic include "A list which, starting from A, proceeds alphabetically—apoplexy, alcohol, blindness, Bright's disease, criminality, cancerous, choreic, cripple, and so on through the various letters, including paranoia, locomotor ataxia, tuberculosis, tumor and vagrant!" It is hard for a medical man to restrain his impatience of a conception that speaks of blindness, tumor, cancerous, cripple, criminality, locomotor ataxia and vagrant in the same breath, when each and every one of these terms includes a large group of conditions with different causes and of completely different biological value. Moreover, just as it assumes the unity of these divergent heterogeneous groups, it assumes the unity of "normality," makes it a sort of biological reality when it is nothing but an abstraction to be classed with justice, charity, an ideal, not an existing thing. It merely means that one can so regulate his conduct as to keep out of jail and the lunatic asylum or that a field worker gathering statistical gossip cannot find that one beats his wife or takes a glass of beer now and then.

2d. Another group of workers, including Jolly, Rudin, Rosanoff and Luther, have tried to arrange the psychoses according to a scale of dominance or recessiveness. This has been carried out most completely by Rosanoff, who speaks of the normal, manic-depressive, dementia præcox and epileptic constitution; those first in the list being dominant to those following. Freely conceding the value of constructive hypotheses, there is absolutely no basis for this arrangement except possibly in the case of manic-depressive in its relationship to dementia præcox. For, if we find a "normal" person or persons giving issue to a manic-depressive descendant, so also we find normal descendants of manic-depressive parents. Likewise if "normal" parents have dementia præcox descendants, the reverse is likewise true, and so with epilepsy. One is indeed presumptuous who says that Mendelian laws may not be true of the inheritance of a psychosis, but one is far more presumptuous who says that proof can be adduced. One can square some of the facts with any theory one pleases, but in the case of Mendelism it surely is a tight and crushing place for the facts of the psychoses. Moreover, no one has ever recorded any family groups where both the dominant and recessive diseases like manic-depressive and dementia præcox

occurred in Mendelian ratios in successive generations. It is true that a certain type of brother and sister mating is necessary for Mendelian ratios, but I submit that it is also necessary for the majority of the Mendelian phenomena. With Mendelism not shown for any "normal" human character, save possibly eye color, it is idle to talk of any psychosis as depending on the addition or loss of a unit character. It is far more likely that these diseases are due to diseased determiners or determiners with loss of vigor as Bonhote points out. The whole theory of injured germ-plasm fits much nearer the facts of the psychoses than the belief that inheritance laws of the Mendelian or Goltonian type govern them.

In formulating a working hypothesis of the psychoses, one that does not claim either finality or a very large measure of proof, I am following Adolf Meyer's conception of the psychoses as in a sense dynamically developed out of character and experiences. At the outset it must be said that such a conception is not psychogenetic any more than it is organic. It starts with the assumption that character is the result of the interplay of "organic" forces, such as enzymes, secretions, neural arrangements, energy of organs, etc., with environmental forces, such as education, social milieu, sexual difficulties, etc. I subscribe to Meyer's statement, "As dynamic factors in these developments there stand out certain activities and states of disturbed plans and regulations which have far-reaching effects upon the mental adjustments themselves and *incidentally* upon the organic understructure of the personality." It must here be emphasized that the activity of the personality depends upon the mood and that this is a product in great part of general organic processes, so that the character of a psychic reaction to the environment is as deeply organic as any reflex.

It is necessary before studying the working hypothesis of the transmission of insanity, its transition from the so-called normal, its change from generation to generation, that consideration be given to the question of conduct, for that is the critical point in the hypothesis. Conduct is the expression of the compromise between inhibition and excitation—in the moral sphere between conflicting desires, between the temporary and permanent purposes.

One may categorically arrange types of conduct as follows:

1st. *Similar conduct may have a totally different internal psychic life as background.* Of two individuals, both may observe the moral code faithfully and outwardly differ but little, yet one is filled with perverse desires and impulses against which he struggles continually yet successfully, while the other's conduct is the expression of nearly single-minded desires.

2d. *Dissimilar conduct may have only a slightly different internal psychical life.* A has desires that continually provoke him to immoral conduct or anti-social conduct, as you please. He is homosexual, continually dominated by perverse desires, but possessed of definite purposes and powerful inhibitions. He, therefore, keeps a good front of conduct, acts like "normal" and no one suspects his struggles. B has no stronger desires than A, but has quantitatively less firm purposes, and his struggling inhibitions hold out only to give in finally or periodically. His conduct is gross. Society points him out as criminal or eccentric or insane. Now, the difference between one and the other is quantitative rather than qualitative. These two individuals, one called normal, the other psychopathic, criminal and what not, are essentially alike, and the quantitative difference may only be a slight one. *It is a question of balance between forces that make for certain lines of conduct and forces that oppose, and a slight difference in favor of the impulse group brings about habits and social consequences out of all proportion to the degree of unbalance.*

This qualitative difference is best illustrated in the reaction to environmental forces. One may use the following comparison: Two men are each hit a blow of the same force. The one falls down and becomes unconscious; the other, perhaps slightly jarred, recovers quickly and knocks down his assailant. *Now the only difference between the two men assaulted was weight, a quantitative factor.* In the one case, the insufficiency brought about serious injury consequences; in the other case, the final injury was to the assailant—totally different consequences, which if we could not measure the blow and resistance quantitatively might be ascribed to qualitatively different forces of resistance. Similarly, one man weeps and is depressed for a short time following a sorrow; another person has a long depression from which he

only gradually emerges. A man approaching middle life learns suddenly that his heart is not behaving right or his sexual powers (of which perhaps he has been proud) suddenly wane. He becomes anxious, depressed, rather hypochondriacal, loses his appetite, is irritable, and perhaps feeling that death is approaching examines his life critically from the viewpoint of morality and religion; he finds himself deficient and is perhaps slightly self-accusatory. *But outwardly his conduct is but little changed*, and gradually or quickly the readjustment comes. He is "normal," but only a moderate intensification of the symptoms *so that they broke through the barrier* would stamp him as involution melancholia. So in every group of people, especially in institutions, in army posts, on board ships, and wherever social life and similar business brings people into intensive and routine relations and where precedence and authority are carefully guarded, are found persons who are continually building up delusions of persecution, but who continually break them down again. Sometimes the feeling that "people here are down on me, they do not give me credit, they talk about me" lasts for a few days and longer, and then is dispelled by proof to the contrary or by the forgetting of the provocatory incident. These people are "normal," in that their conduct may not in the least reflect their feeling and they may confide in only an intimate friend, if at all. Misinterpretation of the motive and conduct of others can easily pass into a paranoid psychosis, for character formation is dynamic and proceeds along channels in such cases that lead into the paranoid state. The "normal" person interposes checks on his paranoid feeling. The balance between hostility or fear and proof sways towards the new fact providing that there was no persecution; but in the abnormal this does not occur and the feeling of persecution deepens because the new fact cannot overcome the old resentment. A quantitative difference in the resentment may be the hinge around which the question of the development of a paranoid psychosis or a paranoid state swings. Where the resentment is great, an intense inner life results with suspicion and hostility or fear as its cardinal emotion or sentiment; the individual commences to run solitary and a psychosis is in bloom.

So too one might speak of the shy, seclusive person. His reserve is occasioned in many cases by a feeling of inferiority in

some direction and resulting instinctive desire to save himself, but other interests overcome this, such as some definite purpose, strong sexual feeling, great ability in some other direction, and normality in conduct is maintained. But some other person with no greater natural shyness has similar interests of less strength and an unbalance towards a developing seclusiveness is created, favoring a phantastic inner life, autistic thinking, etc.

What is here emphasized is that given certain "normal" trends or temperaments, conceding that conduct is the compromise between opposing desires, between excitation and inhibition, the abnormal may be said to arise from the same factors as the normal, except that through excess here and defect there, an unbalance arises which gains momentum through the dynamic factors of habit and social consequence. *Thus there is a quantitative relationship between the normal and the abnormal, and no qualitative relationship need be postulated.*

How does this conception bear on the inheritance or transmission of mental disease? Does the quantitative concept throw light, first, on the bearing of insane children by normal people; second, on the so-called anticipation or antedating of Mott; that is, the earlier onset of a psychosis in a descendant and an ancestor; and, third, on change in psychotic type from generation to generation.

1st. It is obvious that the qualities handed down by parents may through the mixture become unbalanced, disharmonious. One sees disharmonies in *physical* structure of all kinds as a result of mating. One sees tall people with small extremities, short people with large ones, disproportionate features involving every part of the body and every one knows persons who have the "father's temper" with the "mother's intellect" or the brightness of this parent with the weak will of that, or one sees a child who closely resembles only one parent, but whose essential characters are greater or lesser than that parent. Now if these disharmonies are sufficient to unbalance the personality, we have the basis of a psychosis according to the hypothesis detailed above. This dynamic disharmony leads to the most striking and startling surface (or conduct) dissimilarities between parent and descendant. Thus, the pious, close-grained clergyman whose passions and inhibitions are great, whose inward struggle is fierce, develops a defence behavior of rigid, uncompromising morality. His son

with lessened inhibitions but no greater passions yields, forms immoral or spendthrift habits, is outraged perhaps by his father's piety and scorn and drifts through habit and the social consequence of his acts into what is generally called "moral ruin." So the successful man who drives ahead relentlessly by virtue of an egoistic belief in his own superiority *plus* real ability has a son with the same degree of egoism *minus* some of the ability. His efforts go unrewarded, his aspirations are frustrated and he ascribes his failure not to his own inadequacy, but to the machinations of others, and construes the disappointment of his parent into a delusion that this man is not his father. Hypothetical surely are these explanations; they stand or fall upon the belief that qualitative disharmonies bring about very divergent experiences and conduct and are the seeds of the psychoses. They rest on the theory that character and experience, in their interaction produce dynamic results on the personality, set agoing changes which lead on the one hand to functional disorders and "incidentally react upon the organic understructure of the personality." The danger that is in disharmony is especially great in those whose emotional life is intense, and we have here an explanation that points out the relationship of genius and insanity.

2d. The difficulties of any hypothesis increase when we pass from generalization and hypothetical cases to particular cases. How comes it that anticipation occurs? In the first place it is not so important nor so universal as Mott believes. (See previous paper for criticism by Rosanoff and myself.) Secondly, the earlier onset of a psychosis in a child rests upon the fact that the mating of an insane person with a normal may correct the disharmony to the point where the particular progeny will be normal or else it will accentuate the disharmony, in which case the divergence from normal would occur earlier. It is very unlikely that such a mating will leave the disharmony as it was and thus bring out the insanity at the same time.

3d. The difficulty perhaps increases when we attempt to square the hypothesis with the facts of the transformation of a psychosis from generation to generation. As a matter of fact, the main *changes* observed are:

1st. The appearance of dementia præcox in the descendants of persons suffering from senile dementia and involution psychoses.

2d. The appearance of dementia præcox in the descendants of those whose mental disease is called paranoid psychosis.

3d. The appearance of feeble-mindedness in the descendants of dementia præcox.

4th. The appearance of dementia præcox in the descendants of patients suffering from manic-depressive insanity.

For the first two groups it is often merely a question of anticipation and increase in symptoms, for frequently what is called senile dementia or involution psychosis is only late dementia præcox with the coloring of the senium and involution. (See previous paper.) For the appearance of feeble-mindedness in the descendants of people suffering from other psychoses and especially in those suffering from dementia præcox, I have to repeat what was shown in a previous part of this paper, that feeble-mindedness is often an accompaniment of dementia præcox. One has only to refer to the work, not only of Krafft-Ebbing and Kraepelin, but of special investigators like Weigandt, Luther, Wasner, etc., to realize how frequently dementia præcox arises from a basis of feeble-mindedness. Wasner says, "This speaks for an increased predisposition to dementia præcox because of congenital feeble-mindedness." (*Angeborenen Schwachsinn.*) I believe that feeble-mindedness and dementia præcox are biologically closely related and that the same apathy which characterizes dementia præcox occurs very early in certain feeble-minded and prevents intellectual achievement because no interest is taken.

As for the transformation of manic-depressive and dementia præcox I shall leave it an open question. There is some doubt in my mind as to the validity of their occurrence, as previously expressed. If authentic, it offers a difficulty, and especially if manic-depressive and dementia præcox are held to be biologically unrelated diseases. There are cases that seem to form *transitions between manic-depressive and dementia præcox*, and it is certainly a question whether the entire symptom complex of catatonia does not belong here; that is to say, is a bridging over symptom complex between manic-depressive and dementia præcox.

What is here claimed for the working hypothesis, that quantitative character changes, through the unbalance and disharmonies between one group of desires and emotions and another, between

one set of purposes and another, between emotions and intellect, may be responsible for acquired and transmitted psychoses, is not its originality, for it is original only in the new emphasis, but its harmony with two great groups of belief. First, it is in keeping with a firmly rooted belief of people in general that hardship, suffering, emotional shock, masturbation and other bad habits may cause psychoses. Against such a belief the average psychiatrist complacently points out that these things happen to many people and only a few break down, which is equivalent to saying that syphilis does not cause general paresis because only 3 to 4 per cent of syphilitics acquire paresis; which is equivalent to saying that if a bullet is shot at a thin door and a stout one and shatters only the former that the bullet did not shatter the thin door—it was its thinness. The laity emphasizes the active agent; the psychiatrists the so-called predisposition. The causation lies fully in one as much as the other. One might as well deny that tuberculosis is caused by bacillus tuberculosis because a predisposition is required as well. (I am not here discussing metaphysical causation, and possibly it would be better for medicine to drop the conception of causation entirely and speak only of the constellation of antecedents and coincidences.) It is here maintained that these disharmonies may also arise through mating (as pointed out by Cox and others), and be responsible for transmitted psychoses. Second, this theory harmonizes with the newer views of the personality as a synthesis (Janet, Freud, Prince, etc.), more or less successful, the personality being coherent as the synthesis is complete; unsuccessful in so far as it is incomplete or disharmonious. It lays emphasis on the views of Shand that emotions and sentiments are dynamic and have at their command the energies of the organism are purposive and competitive, and select from the possible experiences of the outer world those which harmonize with them. *Difficulties in synthesis due to disharmonious development and action of the various emotions and desires break down the personality.*

Finally it is again emphasized that this conception is not psychogenetic. Back of any psychic disharmony may be an organic disharmony, and indeed the separation of the psychic from other activities is unreal to the scientist. Mood and mind are organic, and any experience is a stimulation evoking a response in a con-

tinuously and complexly actuated organism. A vicious habit is as truly organic in its effects as the repeated stimuli applied to the sciatic nerve of a laboratory animal, and its irradiated effects may in the "predisposed" break down the personality.

Nor does this conception quarrel with any belief or research which brings back mental disturbance to changes in internal secretions. Mood, while not the entire arch, is the corner-stone of character, and one of its two chief sources is the condition of the organism. In other words, mood, mind and character are terms indicating distinguishable parts of organic activity and are only completely separable for reasons that savor of ecclesiasticism.

REFERENCES.

1. Bancroft: Trans. Am. Medico-Psych. Assn., 1914.
2. Bonhote: London, 1915.
3. Cox: Arch. f. Rassenh. u. Gesellsch. Biol., 1908, 56, 124.
4. Davenport and Weeks: J. Nerv. and Ment. Dis., 1911, 28, 64.
5. Krueger: 1 dem. Orig. 1914, XXIV, 2 & 3, 113.
6. Luther: 1914, 2, etc., 1914, XXV, 1 & 2, 12.
7. Meyer: Brit. Med. and Surg. J., 1906, 2, 756.
J. Abn. Psych. 1910-11, 2, 274.
Am. J. Psych. 1910, 21, 383.
8. Myerson: Am. J. Insanity, 1917, LXXIII, 3, 355. This paper contains other references.
J. Abn. Psychology, 1917.
9. Riebeth: 2, etc., Orig., 1916, 31, 1, 429.
10. Rosanoff. Am. J. Insanity, 1913, 70, 1.
11. Schlub: Allg. Zeitsch f. Psych., 1909, 66, 514.
12. Shand: Foundations of Character. McMillan & Co., London, 1914.
13. Stocker: Zeits. f. Ges. Neur. u. Psych., Orig., 1916, XXXII, 1, 39.
14. Wasner: Zeitsch. f. d. Gesamte Neurol u. Psych., Orig., 1915, XXIX, 2, 168. Also reference to Weygandt and Luther.

REPORT OF THE EXAMINATION OF THE — REGIMENT, U. S. ARMY, FOR NERVOUS AND MENTAL DISEASES.

BY K. M. BOWMAN, A. B., M. D., CAPTAIN M. R. C., U. S. ARMY,
GENERAL HOSPITAL No. 6, FORT MCPHERSON, GA.,
Assistant Physician, Bloomingdale Hospital.

Subjoined are the method of examination and the results obtained in the examination of a newly formed regiment in our army for the presence of nervous and mental diseases. The method of examination was worked out by the writer. It is not claimed that there is anything new in the scheme, but it is felt that the careful detailing of a method of examination, together with the results obtained by the use of the method in examining 1189 men, may be of some value.

The examination was composed of two parts: first, a rapid routine examination and second, a careful examination of all suspects obtained from the first examination. In addition, the commanding officer of each battery was requested to furnish a list of suspects. The following letter was sent them:

It is requested that when men are sent for examination there will be a typewritten list of names, and that each battery commander be instructed to report on these lists any person suspected of being feeble-minded, insane, epileptic, habitual drunkard, dope fiend, pervert or criminal; and, in addition, to report persons who continuously show any of the following traits: irritability, seclusiveness, sulkiness, suspiciousness, melancholy, incorrigibility, timidity, shyness, silliness, foolishness, stupidity, slovenliness, bed wetting, somnambulism, with a written complaint in regard to each man deemed unfit for service.

I wish to state here that, in examination of other regiments, I have found that the officers can give the greatest help in picking up suspects, but in this particular regiment the men were practically all recruits, few of them having been in the service as long as three months, and the officers were changed so rapidly that they did not become acquainted with their men. The commanding officer of the regiment, for instance, was changed four times

during the time I was examining it. In consequence, practically all suspects were picked up from the routine examination.

The method of examination is as follows: The men are stripped and step up as soon as the examination of the man in front of them is finished. A clerk writes down the data and only positive, *i. e.*, abnormal, findings are recorded. Each man is asked his name, age and length of service. A few other questions are then asked as date, and place of birth, previous occupation, etc., to help in roughly guessing a man's mentality. Then the suspect is asked if anyone in his family has ever had any nervous breakdown, fainting attacks, epilepsy, fits or mental trouble. Next the same question is asked about the person examined. If any positive answers are obtained, further information is obtained. These replies constitute the family and personal histories, to which reference will be made later.

The neurological examination is conducted as follows: As the patient approaches the examiner, his gait is noted. A rapid glance is made for stigmata, which are not recorded unless pronounced. Needle (hypodermic) scars, are also looked for. The pupils are then examined by the aid of an electric flashlight, for outline, size and reaction to light. The suspect is then made to follow a moving finger with his eyes. In this way, the presence of strabismus, nystagmus, and paralysis of ocular muscles is determined; exophthalmos is also looked for. Next the suspect is made to show his teeth and put out his tongue, the mouth being hastily inspected. Tremors of tongue, lips or face, paralysis of face or tongue, and scars on tongue are noted. Enlargement of the thyroid is then palpated for. Next the suspect is asked to spread out his hands (tremor) and his grip is tested. If hyperthyroidism is suspected, the pulse rate is determined. The knee jerks are then taken, and if increased, Babinski and clonus are tested. Romberg and cordination (finger to finger) are tested and speech is examined by test phrases. All positive (abnormal) findings are recorded. Very slight alterations from the normal are not noted. During this whole examination, the suspect's mentality is sized up. A trained observer can really make quite a good guess as to a man's mentality simply from this brief test. Personally, I have found my results to be much better than I had anticipated. After a little practice, I found that I could examine a hundred cases a day in this way.

After preliminary examination, the suspects are given such further examination as seems indicated, varying in length from a few minutes to several hours. In other words, each case is examined until it seems clear that the suspect either does or does not have a mental or nervous condition sufficient to disqualify him as a soldier. This includes the use of all the commonly accepted methods of mental and neurological examination which seem indicated in each case.

In all, 1189 men were examined in the preliminary examination; 168 men were picked for further examination but only 144 were actually studied, for various reasons, in particular, the large number of transfers, which resulted in many men being sent away to other organizations in the interval between the preliminary and second examinations.

A few of the most important statistics from the preliminary examination are given and may be of interest.

1189 cases were examined. 647 cases or 54.4 per cent were negative in every way. 542 cases or 45.6 per cent showed positive findings.

117 cases gave positive family histories of nervous and mental disorder, and in 40 of these cases all other findings were negative.

57 cases gave positive personal histories of nervous and mental disorder, and in none of these cases were all other findings negative.

475 cases gave positive findings from the neurological and mental examination and in 367 of these cases all other findings were negative.

The 117 cases of positive family histories afforded the following data:

Nervousness, 54, in which 37 were of the mother, 5 of the father, 6 of 1 brother or sister, 6 of 2 or more brothers and sisters.

Fainting attacks, 10, in which 2 were of the mother, 2 of the father, 3 of 1 brother or sister, 2 of 2 or more brothers and sisters, 1 of grandparent.

Epilepsy, 19, in which 3 were of the mother, 2 of the father, 10 of 1 brother or sister, 2 of 2 or more brothers and sisters, 2 of uncle or aunt.

Goitre, 23, in which 8 were of the mother, 2 of the father, 13 of 1 brother and sister.

Insanity, 5, in which 4 were of the mother, 1 of 1 uncle or aunt.

Chorea, 3, in which 2 were of 1 brother or sister and 1 of 1 uncle or aunt.

Miscellaneous, 3.

The 57 cases of positive personal histories yielded the following:

Nervousness, 39, fainting attacks 4, epilepsy 8, chorea 4, miscellaneous 2.

The 475 cases with positive neurological and mental findings ran as follows:

69 cases showed sufficient evidence of mental deviation to warrant further examination. 59 of these were classed as possible mental defectives, 15 of whom were negative in every other way. 10 were classed as possibly unstable emotionally.

Only a few of the most important neurological findings need be given.

71 cases showed the presence of several stigmata of degeneration.

112 cases showed pupillary changes.

91 cases showed sluggish reaction of the pupils.

21 cases showed unequal size or reaction of pupils.

93 cases showed thyroid changes.

65 cases showed slight enlargement of the thyroid.

20 cases showed the presence of small goitres.

4 cases showed the presence of medium size goitres.

1 case showed the presence of a large goitre.

3 cases showed 1 lobe of the thyroid enlarged.

108 cases showed knee jerk changes.

70 cases showed exaggerated knee jerks.

5 cases showed greatly diminished knee jerks.

27 cases showed absent knee jerks.

6 cases showed unequal knee jerks.

126 cases showed the presence of tremors.

106 cases showed tremors of the fingers.

3 cases showed tremor of lips.

10 cases showed tremor of tongue.

7 cases showed tremors involving 2 or more of the above named parts.

- 14 cases showed a slight stuttering or stammering.
- 35 cases showed combinations of alteration of pupils and alterations of jerks and tremors.
 - 10 cases showed pupils sluggish, knee jerks exaggerated.
 - 4 cases showed pupils sluggish, knee jerks diminished.
 - 3 cases showed pupils sluggish, knee jerks absent.
 - 1 case showed pupils sluggish, tremor fingers.
 - 2 cases showed pupils sluggish, tremors fingers, knee jerks exaggerated.
- 11 cases showed knee jerks exaggerated, tremor fingers.
 - 2 cases showed knee jerks absent, tremor fingers.
 - 2 cases showed knee jerk absent, tremor fingers and tongue.

In the second examination, 144 cases were studied. The Wassermann test was done on 47 of these cases; the Binet test in 25. 13 cases suspected of mental defect were foreigners who spoke so little English that it was impossible to determine with satisfaction whether they were sufficiently defective to warrant their discharge, and they were accordingly returned to duty. About 20 were regarded as border-line cases, that is, it was felt that only more careful and prolonged study than was then possible would enable one to completely understand their condition and make proper recommendations. A written report on these 144 cases was sent to the regimental surgeon.

After thorough examination of these 144 cases, 27 were recommended for discharge. The diagnoses¹ in these cases were as follows:

- Defective mental development, 6.
- Defective mental development and epilepsy, 3.
- Defective mental development and constitutional inferiority, 3.
- Defective mental development and constitutional inferiority with psychosis, 3.
- Chorea, 3.
- Exophthalmic goitre, 3.
- Exophthalmic goitre and defective mental development, 1.

¹ These diagnoses follow the nomenclature of the Manual of the Medical Department. Recently the Surgeon General has ordered that the nomenclature adopted by the American Medico-Psychological Society in May, 1917, be followed.

Hyperthyroidism, 1.

Hyperthyroidism and anxiety neurosis, 1.

Dementia præcox and drug addict, 1.

Epilepsy, grand mal, 1.

Epilepsy, petit mal, 1.

Constitutional psychopathic state, 1.

A brief summary of each of these 27 cases follows:

1. Private H. G., 18 years old, prisoner. Had drawn his gun on his corporal. Unruly, sullen and irritable. On examination the following facts were obtained from him: His paternal grandfather, father and mother all died in hospitals for insane, patient was always irritable and had a bad temper. This, he said, ran in his family. Admitted using cocaine for the last year. Dreams of killing people. Says people are against him and trying to injure him, "But they don't do it; I'll kill a couple." Admits hearing voices. Says he has heard them all his life. Voices abuse him and make him angry. Voices sometimes tell him to kill people. Has considerable insight, says "the whole damn family, we are crazy." In mood, he is sullen and irritable and suspicious. Physical examination was negative. *Diagnosis:* Dementia præcox, paranoid type. Drug habit (cocaine). It was recommended that this patient be sent to his state hospital for insane as a dangerous person.

2. Private L. H., 19 years old. Family history very incomplete. Mother has fainting attacks; one sister has epilepsy. Personal history: Went to school one term, then "shook all over and was sick" and was taken out. Has worked sweeping floors since 15. Mental state: Is 9 years old by Binet test. Mental defect very apparent. Cannot add 2 and 4. Physical: Many stigmata, trembles when examined. Pupils a little sluggish, knee jerks exaggerated. *Diagnosis:* Defective mental development.

3. Private M. G., 29 years old. Family history: Very incomplete. Father has some vaguely defined nervous trouble. Personal history: Does not know when he was born. Spent five years in an ungraded school. Went to work at 15 and has worked as a laborer ever since. Has had typical epileptic convulsions. Has aura, then falls down unconscious in spasm. Has incontinence of fæces during attacks. Mental status: Binet test shows a mentality of 7 years. Mental defect is very apparent. No evidence of delusions or hallucinations. Physical: Essentially negative. *Diagnosis:* Epilepsy, defective mental development.

4. Private E. D., 24 years old. Family history: Mother and three sisters have chorea. Personal history: Has had attacks of chorea ever since he can remember. In an orphan asylum till 13; has worked on a farm ever since. Shortly after the preliminary examination he developed a typical attack of chorea and was brought into the hospital. *Diagnosis:* Chorea.

5. Private T. P. P., 23 years old. Family history: Negative. Personal history: Never very strong. Went to school till 15 but only reached the 5th grade. Always nervous, excitable, easily upset and this condition has

been worse since he joined the army. Has attacks of palpitation. Mental status: Seems nervous and excitable. Binet test shows a mentality of 15 years. Physical: Moderate enlargement of thyroid, slight exophthalmos, pulse 100, tremor fingers. *Diagnosis*: Exophthalmic goitre.

6. Private J. O., 19 years old. Family history: Negative. Personal history: One year in school. Worked as laborer. Complains of nervousness, blackness before eyes and various hypochondriacal symptoms. Says he cannot do calisthenics. Mental status: Very dull and stupid. Nervous. Hypochondriacal. Binet test shows a mentality of 10 years. No evidence of delusions or hallucinations. Physical: Negative. *Diagnosis*: Defective mental development.

7. Private W. C., 19 years old. Family history: Father is nervous. Mother has manic depressive insanity. Both maternal grandparents and one paternal uncle were abnormal. Personal history: Never attended school regularly. Always peculiar. Never played with other children; kept to himself. States that he has always been unable to learn. Says that the other soldiers call him "crazy." Was in Mexico with Pershing's troops. Mental status: Binet test shows a mentality of 8 years. Is clearly below normal intelligence. Admits auditory hallucinations which have been present since a child but shows no evidence of delusional formations. Physical: Negative. *Diagnosis*: Constitutional psychopathic state.

8. Private V. M., 21 years old. Family history: Mother has spells when she gets nervous and excited and has to go and sit down. One sister has epileptiform convulsions. Personal history: Normal childhood. When about 9 years old he was sitting in the school room studying, when things turned black and he fell out of his seat. These attacks have continued up to the present time. Attacks are not all alike. Usually are preceded by a general tremor, then things turn black and he falls down. Hears people talking but cannot understand what they are saying, is unable to move. No incontinence. Often attacks only last a few seconds. Mental status: Not very high grade mentally. Shows some vague hallucinatory mechanisms. Physical examination: Negative. *Diagnosis*: Epilepsy, petit mal.

9. Private J. P., 32 years old. Family history: Father alcoholic and irritable. Mother has large goitre; is a little nervous. One sister has spells of irritability. One brother is nervous like the patient. One brother weighed 200 pounds when 13 years old. Is high strung and has "rheumatism." Personal history: Normal childhood. Became nervous when about 10 and was kept out of school some. Thinks he overstudied. Quit school when 13; has worked as a laborer since. Worked a good deal nights and did not sleep properly. Started drinking when about 16; sometimes would average 10 to 15 glasses of beer daily. Masturbated a good deal and read quack literature, which caused him to worry a good deal. Contracted gonorrhœa about seven years ago and did not have proper treatment. About five months after this he began to have auditory hallucinations; was confused and shook all over. This condition disappeared in a few days. Mental status: Is worrying and anxious. Has feelings of inadequacy and

shows a rather typical masturbation complex. Has no hallucinations now. Has good insight. Physical examination shows a medium-sized goitre and coarse tremor of fingers. Complains of attacks of palpitation. *Diagnosis:* Anxiety neurosis. Hyperthyroidism.

10. Private R. W., 22 years old. Family history: Paternal grandfather had "nervous prostration" for 15 years preceding his death. Maternal grandfather was periodical drinker. Nervous and easily upset. Maternal grandmother always nervous and worried a great deal. Mother is nervous and easily upset. One brother is 18 and has quit school because of his "nerves." Personal history: Never strong, always nervous. Enuresis until 18. Had some sort of an operation for discharging ear when 9. Was so nervous after this that he was not allowed to go back to school but was sent on a farm where he stayed until he joined the army. Has had several attacks when things would get black and he would fall down, but did not lose consciousness. Finds it hard to do things. Sleeps poorly. "I don't like to be around people." Mental status: Is nervous, worried and discouraged. Binet test shows mentality of 9 years. Physical examination shows a coarse tremor of hands. *Diagnosis:* Constitutional inferiority. Defective mental development.

11. Private F., 17 years old. Family history: Maternal grandfather had chorea. Mother has epilepsy. One sister is nervous. Personal history: Normal childhood. One year in school; did not like it, so quit. Worked on farm most of life. Has spells when he shakes all over and feels numb. Reported by commanding officer as dull, stupid and incapable of learning. Mental status: Is dull and stupid and shows lack of understanding. Cannot read or write. Binet test shows mentality of 10 years. Physical examination is negative. *Diagnosis:* Defective mental development.

12. Private E. De T., 22 years old. Family history: Father is nervous and easily upset and shakes all over. Mother is also nervous and easily upset. Personal history: Nothing known of early life. Never went to school. Ran away from home at 8 and has "bummed" from one town to another ever since. Never worked until about two years ago, but has worked fairly steadily since. Uses alcohol to excess. Has been arrested three times for "being drunk and raising the devil around town. Riding freight trains." Mental status: Appears of rather low intelligence. Shows a certain childish directness and lack of modesty in discussing his personal history. Seems quite proud of his ability to live without working and of his alcoholic excesses. Speaks of some vague, half-formed hallucinatory experiences. Binet test shows a mentality of 9 years. Physical examination was negative. *Diagnosis:* Constitutional inferiority. Defective mental development.

13. Private E. S., 19 years old. Family history: Father alcoholic, nervous and irritable. One maternal aunt insane. Three sisters are nervous, easily upset and irritable. Personal history: Little known of early life. Has had convulsions ever since a baby until four years ago. Would become unconscious and have clonic spasm. Often bit tongue. Went to school about seven years, then worked on a farm. Mental status: Seems rather childish and immature and not very bright. Binet test shows a men-

talities of 9 years. His memory about the remote past is quite vague. He admits visual hallucinations. At night he sees white objects walking around. Physical examination: Negative. *Diagnosis*: Epilepsy. Defective mental development.

14. Private R. U., 21 years old. Family history: Negative. Is of Italian stock. Personal history: Uneventful. Born in Italy. Three years in school. Came to United States when 11 years old. Has worked as a laborer. He is said by his regimental commander to be dull and stupid and incapable of learning. Mental status: Binet test shows a mentality of 8 years and other tests confirm this. *Diagnosis*: Defective mental development.

15. Private H. P., 28 years old. Family history: Mother insane. One maternal aunt alcoholic. One maternal aunt is a chronic invalid. One brother is Case 16 of this series. One brother belongs to the 12th Field Artillery. It is said that he ran away about a month ago and was caught and put in the hospital. Personal history: Little known of early history. Went to school two months; cannot read or write. Has worked as a laborer all his life. Mental status: Quiet, underactive, dull and stupid. Does not comprehend many things asked him and makes contradictory replies at times. Is somewhat vague and seems a little out of touch with the world of reality. Binet test shows a mentality of 9 years. Has hallucinatory experiences; sees claws coming across his face; sees a light "just like gold"; imagines that he is someone else; or "I imagine there is two of us"; "Don't know what you're doing half the time." Has considerable insight and realizes there is something the matter mentally. Physical examination shows many stigmata. *Diagnosis*: Constitutional inferiority with psychoses. Defective mental development.

16. Private L. P., 27 years old. A brother of H. P., Case 15. Personal history: Little known of early life. Never very strong. Entered school when 6; went irregularly until 13. Found school work very hard; was in second grade when he left. Worked at various jobs since; usually quit in a short time because he found the work too hard for him. Mental status: Is dull and stupid; no initiative; slightly undertalkative; rather apathetic. Speaks of some vague hallucinatory experience, "Sometimes I see something coming towards me in the dark; imagination." Binet test shows a mentality of 10 years. Has considerable insight; says he cannot learn as easily as most persons. Physical examination is negative. *Diagnosis*: Constitutional inferiority. Defective mental development.

17. Private E. S., 22 years old. Family history: Paternal grandfather insane. Mother and two maternal aunts have chorea. Personal history: "Spinal fever" at 2. Entered school at 6; went until 10, when he developed chorea and was out for two years. Returned and finished the 8th grade when 18. Worked on a farm most of the time prior to enlistment. Has had occasional slight attacks of chorea during this time. Complains that at present he is nervous; his eyes jerk at times; when standing at attention his knees "quiver." At times he feels as if he would fall down. Mental status: Essentially negative. Binet test shows correct replies for 15 years

and some correct replies for adult. Shows some nervousness and hypochondria. Physical examination shows internal strabismus with diplopia. No tremors present at time of examination. *Diagnosis:* Chorea.

18. Private B. S., 19 years old. Family history: Father has epileptiform convulsions. One sister has had one convulsion when small. One sister is "weak and nervous." Personal history: Little known of early life. Replies are confused and contradictory. First convulsion occurred coming home from school. Fell down, unconscious, clonic spasm. Has been having convulsions ever since, frequently from two in the same day to intervals of two months apart. Has had convulsions several times since in army. Mental status: Seems very childish and quite dull. Will often break in with some remark absolutely unrelated to the conversation. Memory seems quite vague. Binet test shows a mentality of 9 years. Physical examination is negative. *Diagnosis:* Epilepsy. Defective mental development.

19. Private W. D. M., 24 years old. Family history: Father has neuralgia and is nervous. Mother was undernourished, highly excitable and worried. One brother has epilepsy. Personal history: Little known of early life save he went to school six years and was in the 7th grade, but failed in his work about half the time. Worked at odd jobs; twice was a section foreman but could not make out his reports so was discharged. Has attacks now when he falls down; shakes all over; is unconscious and often has incontinence. At nights he has smothering attacks. Always gets dizzy on exertion. Has used alcohol since 14, often 3 to 12 whiskies daily. Mental status: Has auditory hallucinations. Hears voices. "They are always friendly and seem to be trying to help me." "They call my attention to things." "They read novels to me and try to teach me things." "They sound like real voices." "I don't know whether they are real people or not." Is quite dull. Binet test shows a mentality of 7 years. Says that his mind is affected. Physical examination shows a coarse tremor of hands and an area over left kidney where sensation is possibly diminished, but replies are so contradictory that this could not be satisfactorily determined. *Diagnosis:* Constitutional inferiority with psychosis. Defective mental development.

20. Private W. D. H., 19 years old. Family history: Mother nervous. One sister nervous and shakes all over at times. Personal history: Only a few months' schooling. Worked on a farm most of life. At present is bothered by weak, nervous spells and smothering attacks. Mental status: Seems dull and stupid. Binet test shows a mentality of 9 years. Is reported by his sergeant as being unable to learn. Occasionally he has auditory hallucinations; thinks he hears someone call him. Physical examination is negative. *Diagnosis:* Defective mental development.

21. Private A. J. J., 23 years old. Family history: Negative. Personal history: Normal childhood. School till 19. Studied electrical engineering but did not like it. Worked as timekeeper until he enlisted on June 2, 1917. He had an attack of tonsillitis shortly after this and then noticed that he could not button his shirt around his neck. The swelling in his neck has increased steadily. Has always been a little nervous, but more so lately.

Has severe attacks of palpitation. Has had two attacks of diarrhoea recently and has lost about 15 pounds. Mental status: Negative, except he seems rather nervous and on edge. Physical examination: Slight exophthalmos, thyroid symmetrically enlarged, slight tremor of fingers, pulse 112. *Diagnosis:* Exophthalmic goitre.

22. Private G. T., 19 years old. Family history: Paternal grandfather, father and two paternal uncles are all described as nervous and worrying a good deal. Mother and one sister are chronic invalids. Personal history: Was prematurely born during severe illness of mother and only weighed three pounds at birth. Was sick first three years of life and never out of bed. Finished high school at 18. Was nervous and had headaches so quit school and worked in an auto shop. Since in the army he is more nervous, worries, gets easily excited, at times shakes all over, has attacks of palpitation and of diarrhoea. Mental status: Is nervous. Can't sit still. Says he worries a good deal. Physical examination shows thyroid slightly enlarged, fine tremor of fingers, pulse 90. *Diagnosis:* Hyperthyroidism.

23. Private M. S., 22 years old. Family history: Maternal grandmother and mother are described as nervous. One brother is a little nervous and worries some. One half-sister had a goitre and now has extreme tremor of hands and is unable to sit still. Personal history: Little known of early life. Went to school irregularly until a year ago and worked on the farm. Reached 5th grade. Never very strong. During the last year has noticed a swelling in his neck which has gradually increased. Has also been more nervous, has worried and would get easily excited. Would have spells when he would tremble all over. Mental status: Nervous and worried. Quite dull and stupid. Binet test shows mentality of 9 years. Physical examination shows marked exophthalmos, medium-sized goitre, tremor of fingers, pulse 92. *Diagnosis:* Exophthalmic goitre. Defective mental development.

24. Private J. B., 25 years old. Family history: Nothing known of grandparents, uncles and aunts. Father has a goitre and is very nervous. Mother has a goitre, "is sick all the time." Four sisters are nervous and have tremor of hands. Two sisters have goitres, are very nervous and easily frightened. Personal history: Can give few details of early life, apparently too stupid to remember. Only went to school one month. Swept out a store when 12. Kept at it three years, then loafed three years. Then left home because "they were always chewing the rag and fighting." Worked in lumber company two years, then started bumming around the country. Would work only a few days at a time. Got drunk "whenever I got the chance." One time was drunk for two months, having saved \$300 for this purpose. Used cocaine for a short time six years ago, but says he quit because it made him more nervous. Has averaged 20 to 40 cigarettes daily. Says he is nervous, easily excited and worries, but will not discuss his worries frankly, though admitting they have to do with sex matters. Mental status: Is very dull, stupid, and unintelligent. Binet test shows a mentality of 9 years. Admits hearing voices, apparently is not very frank and open. Physical examination shows a coarse tremor of fingers.

Diagnosis: Constitutional inferiority with psychosis. Defective mental development.

25. Private A. E., 25 years old. Family history: Paternal grandmother had epileptiform convulsions. Father is very nervous and trembles at the least excitement. One paternal uncle committed suicide when depressed. One paternal aunt is in poor health, nervous and worries a good deal. Maternal grandfather had exophthalmic goitre. Mother and three maternal aunts have epileptiform convulsions. Two brothers are nervous and excitable. One brother and one sister have epileptiform convulsions. Personal history: Sickly as a baby. School 6 to 14. Finished 7th grade. Commenced to have convulsions when 8, which have persisted up to the present time. From 14 to 21 was a call boy, then a fireman on switch engine for two and a half years. Quit because he had several convulsions on the engine. Drove a team until he enlisted in the army, April, 1916. Convulsions have persisted and he has twice had them in the army hospital. A typical convulsion is as follows: Aura consisting of weakness and sweating. Suddenly he falls back without any warning and is unconscious. There is a short tonic spasm, followed by clonic spasms involving all parts of the body. There is gritting of teeth. Often he bites his tongue and there is bladder incontinence. Patient has averaged four to five whiskies daily. Mental status: Says he hears a male voice warning him at times. Does not know whether this voice is real or not. Physical examination, negative. *Diagnosis:* Epilepsy.

26. Private G. B., 21 years old. Family history: Father and mother both very neurotic. One paternal uncle insane. Two brothers have facial tics and twitchings of their shoulders. Personal history: Sickly as a child. Finished the 6th grade when 14; did not go to school regularly because of health. Worked in a dry goods store and then in a shoe factory. Has had attacks of chorea ever since about 6 years old, but these have been absent for the last two years. At present is bothered by extreme nervousness, feels as if he were about to have another attack. Mental status: Negative, except that he seems nervous, easily excited and keeps fidgeting at things. Seems unable to sit still. Physical examination negative. *Diagnosis:* Chorea.

27. Private P. F., 35 years old. Family history negative. Personal history: Patient's account is unsatisfactory; he often says he cannot remember things. No history of severe illness. Practically no schooling; cannot read or write. Has worked at various jobs, mostly unskilled labor. Has been twice arrested for vagrancy. Mental status: Seems very childish and immature; cries if spoken to sharply. Is extremely dull and stupid. Mentality 8 years by Binet test. Physical: Has a chronic arthritis in left hip and complains of pains in various parts of the body. *Diagnosis:* Defective mental development.

The results may briefly be summed as follows: By the use of a rapid routine examination and a second examination of suspects, a regiment of 1189 men were examined for nervous and mental

diseases. As a result, 27 men or 2.2 per cent were found to be suffering from nervous or mental disease in sufficient degree to warrant their discharge.

And to generalize these conclusions: There are at present throughout the army, and more especially among those organizations composed of recruits, a considerable number of cases of nervous and mental diseases. By the examination outlined in this article many of these cases can be detected and discharged, thus freeing the army of men who not only would be of no value but who would be a burden and detriment to the service.

IMPULSIVE ACTS IN THE PARTICULAR FORM OF
SWALLOWING FOREIGN OBJECTS, AS MET
WITH AMONG THE INSANE.*

By A. W. HOISHOLT, M.D.,

*Superintendent Napa State Hospital; Clinical Professor Psychiatry,
Stanford University.*

Every human being is endowed with certain elementary cravings, congenital in origin, and of the greatest importance to the maintenance of the human body, such as the nutritive, the sexual and the self-preservative. Of these elementary cravings the one for food bears at least a physical relationship to the impulsive acts with which this paper will deal.

The natural requirement of the body to replace lost energy by taking into the body new material for its maintenance causes the feeling called hunger or the craving for nourishment.

This craving takes a normal course, running parallel with the ups and downs experienced by the human being during health, but it becomes pathological whenever it is excessively diminished or excessively increased, whenever it does not show an exercise of choice, or a loathing for the unclean, but especially when it becomes completely diverted from the nutritive craving to ideas diametrically opposite to the sustenance of life—under the influence of fallacious ideas of one kind or another. Sometimes the ideas leading to the introduction of substances into the stomach are based upon a pathological feeling, such as the craving of the hysterical for attention. At other times the impulse is still more diverted and utterly devoid of logical motive, as when a case of dementia-præcox purposelessly and triflingly forces foreign substances into his pharynx and esophagus. In the case of the hysterical, the abnormal psychotic state, which is present at the moment the craving is experienced, gives to the impulse so great a force that the mental reflection which would oppose the execution of the act does not arise in consciousness, or does so only in a fleeting manner. This was the case in a patient of the Napa State Hospital, suffering from hysterical insanity, whose im-

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pulsive acts consisted of the swallowing of a variety of foreign objects. She had done this on at least two occasions as far as we now know. The first one occurred in April and May, 1912, as reported by Dr. A. C. Matthews, of the Napa State Hospital staff, in an article published in the *California State Journal of Medicine* in January, 1913. At that time 1149 foreign bodies were removed by Dr. Matthews from the stomach on May 17, 1912, the patient making an uneventful recovery. From 1912 until the fall of 1915 the patient continued to be an inmate of the hospital, subject to spells, during which she would show restlessness, moodiness and morbid jealousy. Whenever her patient-friends seemed to her to be favored by a nurse or a physician she would show hypersensitiveness and would become exceedingly jealous, usually taking offense at trifling occurrences. She gradually, however, improved until she was able to work outside of the institution, at the end of the above-mentioned period. In the course of months, during which it seems she was given work which overtaxed her strength, the nervous symptoms again showed themselves and she was returned to the institution in a condition of excitement. During the month of May, 1916, she appeared to be absent-minded and seclusive, as well as restless and despondent; but after a while she became brighter, took special interest in the work of the arts and crafts department of the institution, until September of this year, when she began ailing physically and a tumor-like mass was discovered in the right epigastrium, which upon X-ray examination proved to be a mass of foreign objects. Photographs of the X-ray plate and of the foreign objects afterwards removed are herewith appended. The operation instituted led to the removal of 921 objects consisting of pins, safety pins, nails, a breast pin, etc. After her recovery from the operation she gave a past history showing that she had been in a dream-like state for a month or more in the spring, during which she had swallowed these articles; not afterwards remembering what things, at what time, or why she had continued to swallow them. All she remembered was that she at that time had a feeling of despondency at not being allowed to see her friend, and that she wanted the nurse to feel sorry for her. When told that unclasp safety pins had been found among the foreign objects, she stated that she remembered wrapping safety pins with tissue paper after un-

clasping them, so as to facilitate the swallowing. She wanted the safety pins to open in the stomach so that they would hurt her.

A case of somewhat similar nature occurred in the hospital about two to three years ago in which the patient showed outbursts of fury with tendency to do harm to others and to feign attempts to do away with herself. These outbursts at first lasted a few days, later only a few hours. They were associated with peculiar fallacious ideas which the patient herself recognized as fallacious. She would at times pretend to faint, and, as she herself described her feelings afterwards, would enjoy seeing the nurse put to the trouble of carrying her to her room, undressing her and putting her to bed. She sometimes tried to hurt herself by biting her arms, etc., but always seemed to take care not to hurt herself very much. The furious outbursts were attended by a feeling of despair, during which she would try to disfigure her nurse with any possible means at her command, and after a few minutes or hours would apologize and explain that she was jealous of the good looks of the nurse. On Xmas day, 1914, at a time when the patient was rather cheerful, she asked the nurse to let her celebrate Christmas by drinking out of a glass instead of a tin cup. The nurse yielded and when the latter had thoughtlessly left the glass in the window and absented herself for a few minutes, the patient managed to break the glass, taking pains to make little noise, as she afterwards explained. She could not, however, remember clearly what happened after that. When the nurse returned and found blood on the pillow she examined and discovered glass in the bed. Every particle of glass was removed from the room and the patient was under complete restraint for a time, during which she passed by the bowel 23 pieces of glass, some of them over an inch in length with sharp edges and points. The patient states that she does not remember experiencing any pain from a cut she received on the lip, or from the swallowing.

The first-mentioned case is a typical one of hysterical insanity, and the second case has a great many of the features of this form of mental disease. The imperative or impulsive acts in these cases appear to have been carried out in states of befogged consciousness, or dream-states, under the influence of understandings and desires with which the patients had been occupied during their more normal states, but which inclinations they at

such times could overcome by rational reasoning, as afterwards explained by them.

Besides the above hysterical cases we had last year two patients that swallowed foreign bodies, one of whom at least was a katatonic. In these cases the impulse was without visible motive, or recognizable aim, and apparently without the struggle of contrast ideas met with in hysteria. In katatonia as well as in epilepsy, in fever deliriums and in mental confusion, we observe an explosive suddenness of the act in attacks on others, or, as in these cases, in acts directed against themselves, which is characteristic of an imperative act.

The first of these cases is that of a young man of 32, who had presented typical symptoms of a dementia præcox. In May, of last year, a teaspoon was missed in the ward of which he was an inmate, and he was finally suspected of having hidden it. When questioned he said he had "swallowed it," and repeated the same answer when asked about a half-dozen missing links of bed springs. An X-ray examination revealed the presence of a teaspoon in the left epigastrium, and the links of bed springs in the region of the appendix, as shown in the accompanying X-ray photo. These articles were removed by operation in June, of last year, the patient making a rapid and uneventful recovery, his mental condition remaining unimproved. The patient continued to be perfectly comfortable physically, although a second X-ray examination showed that there were two more bed-spring links in his bowels in the region of the sigmoid flexure.

The fourth and last patient had not been diagnosed mentally when symptoms of appendicitis were discovered. The laparotomy resorted to revealed the protrusion of the handles of two teaspoons from a perforation of the ileum about two inches above the ileo-cæcal valve. The patient died eleven hours after the operation.

CASE I.—A. B., white, female, age 35, married, two children. Admitted March, 1912.

F. H.—Father's brother insane. Father and sister said to have been eccentric.

P. H.—Physically healthy when a child, but always more or less nervous; was subject to nightmares. When a girl, fainted from fright and suffered from cramps at the time of menses. She has never had attacks of aphonia, nor does she remember having had cravings to eat unusual things. When

she was 20 years old she was reserved and seclusive and very wilful—would not listen to reason. Said to have had a previous attack in 1908, lasting four or five months. At that time was unable to sleep; cried and screamed continually, and worried over trifles; was taken to a sanitarium where she remained one month. Often complained of fullness in the back of the head and around the ears. Two weeks previous to the beginning of the trouble had been visited by a physician on account of slight rash across one breast and was told that she had syphilis. After three weeks' treatment with mercury the mental attack of 1908, described above, intervened.

Previous to admission patient worried considerably over her baby who had been operated on for strangulated inguinal hernia; also worried about a baby that was born two months later, and was a "blue baby."

On admission the patient was well oriented, had good grasp of recent past, etc., and responded excellently to the usual tests. The physical and neurological examinations showed practically nothing excepting the fact that she was rather nervous and slightly emaciated.

The present attack began gradually, about September, 1910. The patient heard voices and music, saw bright lights, felt persecuted, was hysterical, had attacks of crying, said she wanted to hurt some one; placed hands on child's neck to choke it, but changed her mind. Said she felt impelled to do acts which she knew were wrong.

After admission patient was very restless and paced the floor constantly; was distinctly depressed. Said she was unable to control herself. On two occasions broke windows and destroyed bed clothing, and on one occasion tore sheet into shreds and made same into rope, which she wound about her neck. While on a walking party she intentionally scratched her hand severely on a barbed-wire fence.

Often complained of insomnia and at times had hallucinations of all the senses, which she recognized as such. Spent many hours writing emotional letters in fine copper-plate hand, usually making requests to see the children or be allowed to go home.

On May 16, 1912, gastrotomy was done and 1149 foreign bodies, weighing one pound and two ounces, were removed; consisting mostly of safety-pins, hair pins, buttons, nails, parts of teaspoons, and many small pins. Recovery was uneventful. Under treatment patient gradually improved.

On July 10, 1913, she was sterilized as she was anxious to be given leave of absence and an opportunity to make a living outside the hospital.

During part of 1914 and 1915 she did housework in a family living near the hospital and got along fairly well, but continued to show nervousness and hypersensitiveness, frequently calling on the superintendent for sympathy and advice whenever she had taken offense at or had become jealous of this or that person in her immediate surroundings.

While living with this family she had to be humored in every way, or she would become moody or irritable. She finally became so nervous, and unable to control herself, that she was returned to the institution, about November, 1915. In March, 1916, she was again enjoying parole of the

grounds, but when she violated the rules of parole and lost it, she had an outbreak of irritability—tried to provoke her nurses by acts of untidiness and had crying spells. About August 1, a large mass was discovered in the right epigastrium, which made her physician suspect presence of foreign bodies in the stomach. This was verified by an X-ray examination on September 20. On September 29, Dr. A. C. Matthews again opened the stomach and removed 921 foreign objects, consisting of the following articles:

Small pins	412
Hair pins	45
Nails	70
Broken hair pins and small wires.....	145
Large safety pins	45
Small safety pins	47
Screws	8
Brass-headed tacks	10
Broken safety pins	28
Shoe buttons	3
Buttons	4
Pieces of corset steel and tin.....	54
Large beauty pin	1
Piece of spoon	1
Small pebbles	10
Pieces of hose supporters	5
Hooks and eyes	14
Pieces of glass	11
Pieces of chinaware	5
Large sewing needle	1
Pieces of thread	2
Total	921

She made a good but somewhat slow recovery, and was able to be up after five or six weeks.

When she was interviewed about three weeks after the operation she said that she had noticed that whenever she became very nervous and upset she did not remember things that had happened, and when she got over these spells and looked back the past seemed like a nightmare to her. She thought she began "to swallow things" in April or May, 1916. "It seems so distant now—just like a dream. I can recall one thing sometimes, when something else will occur to me. I remember one afternoon that I was literally feeding on pins—but I don't remember what week or what afternoon it was, or at what time in the afternoon, or what else I swallowed. I remember one time swallowing a big nail. It seems an impossibility now that I should have managed to do so. I remember it was large, but not its color, nor when I did it, nor whether I felt any pain as it went down into the stomach. I remember that I swallowed the things because I thought I would make myself physically ill so that the nurse would feel sorry for

me and give me more attention, etc.; and keen disappointment at not being allowed to see my friend, I think, also put me in the mood to do it." When she was asked if she had not swallowed a breast pin, she said: "I barely remember something like that, but I don't remember what it looked like." She experienced visual hallucinations at times: "Sometimes I would see forms of beautiful children before my eyes and I would see faces which sometimes would become distorted. When I look back upon my nervousness in the past I find that I always experienced an internal nervousness which I tried in vain to suppress." She complained at this time of a choking feeling or a feeling of something tightening inside of the lower jaw when nervous. A feeling of precordial pressure and parasthetic sensations with marked tremor of hands and fingers were recorded. The surface of the palate seemed anaesthetic, but no anaesthetic zones in skin were ascertainable at this time. We have not been able to detect a contraction of the field of vision since she swallowed the foreign objects, but a marked inversion of the color fields has been found present.

CASE II.—C. D., white, female, age 31, single, student. Admitted May, 1914.

F. H.—Family reticent as to history.

P. H.—Patient has always been very nervous and self-willed, going into tantrums when a child on the least occasion. Of late years has been overworked; an unhappy love affair occurred just before she was sent to the hospital. Physical, including neurological examination, negative.

Her mental disease began suddenly, and she attempted suicide eleven days afterward, day before admission.

On admission patient was very restless, cried and screamed, tried to break and butt down doors, and attempted suicide by butting head against wall and by strangulation, but this effort did not seem to be seriously intended. She accused herself of having committed sin for which neither God nor man could forgive her. Her condition was very changeable—the violent outbursts lasting for days, separated by quiet lucid intervals of one week or more. The violent spells were attended by noisiness and erotic excitement, but even at such times she would, during short intervals, talk in a lucid and coherent vein. No evidence of negativism or stereotypy. During the long intervals of quietness she would show self-control and rationality—would enter into intelligent discourse during which she would even give evidence of sharp wit and bright intellect.

In February, 1915, she began to give expression to a few fallacious ideas: "The warm packs were taking away her brains, etc." About this time she bit the thumb of her nurse in a violent spell and threatened to kill her folks for putting her in the hospital; complained of burning sensations in the head and even talked of suicide during quieter moments, especially of her attempted suicide prior to coming here, becoming desperate about it, and would at such times become very noisy, saying: "The only way to end it all is to shoot myself." In April, 1915, she on one occasion put her head and neck under the strap of the restraining sheet and called for help.

She was found unhurt except for a slight bruise on her neck. During May, 1915, she seemed to become more and more irritable, cursing every one and giving expression to persecutory ideas. She would sometimes pretend to faint, enjoying seeing the nurses put to the trouble of carrying her to her room, undressing her and putting her to bed.

Spells of furious excitement continued throughout the summer and fall of 1915. She was as before very noisy, would try to bite or get her fingers into the nurse's eyes at times, and frequently required restraint to prevent her from biting her own hands and arms. She would scream because she said that she had lost all sensation of pain. In her despondent moods she talked about the easiest and least disgraceful way of committing suicide; said that she did not have the moral courage to drown herself but hoped that it might happen accidentally. She would knock her head against doors and windows as if to kill herself, but seldom bruised herself much.

During the past year the patient seems to have improved slowly but steadily, and attacks of violence have been absent for the past six months. She has become much interested in arts and crafts work, and is now in every way well behaved, hoping to leave the hospital very soon. No deterioration in intelligence can be detected.

On December 25, 1914, she seemed rational and cheerful. When a tray with Christmas dinner was brought to her she remarked: "Why don't you let me drink out of a glass instead of a tin cup on a day like this, Christmas morning?" The nurse consented to this and afterwards thoughtlessly left the glass standing in the window. When the nurse returned she found a trace of blood on the pillow, which led to the finding of pieces of the tumbler in the bed, and a cut on the patient's lower lip. The patient admitted that she had swallowed the glass. She said she had felt no pain, either in her lip or in her throat when she swallowed the glass, and did not remember how many pieces she had swallowed. She in fact had very little recollection afterwards of the whole occurrence. No appreciable contraction of ocular fields was ascertainable at this time, and the skin sensation revealed no anæsthetic areas. During the following week, from December 25 to January 1, 1915, she passed 23 pieces of glass and one button, some of the pieces of glass being extremely sharp and pointed, and measuring about an inch in length. She had not suffered from any abdominal pain whatever.

CASE III.—F. R.—Admitted November, 1914, white, male, age 32, single, dairyman.

F. H.—Mother considered insane on religious subjects; never committed. Half-sister and paternal grandfather committed suicide.

P. H.—As a boy received injury to left testicle; later, but while still young (exact age not known), performed castration upon himself. Otherwise had been considered strong and healthy, but somewhat queer.

P. I.—Began October 25, 1914, about three weeks previous to admission; in a private institution where he acted and talked irrationally, heard voices and laughed immoderately.

On admission, physical examination negative, except for left-sided castration.

Neurological examination negative.

Mental Examination: Patient was quite nervous but not apprehensive; was elated at times and at other times "got lonesome." His intelligence seemed fairly good, no apparent disturbance of idea-association; thoughts seemed to pass through the patient's mind more rapidly than formerly.

Five years ago he felt that he had been hypnotized and that thoughts were at times transmitted to him, which he believed he must obey. There were no visual or auditory hallucinations. Ever since that time he has felt that his fellow workmen have attempted to make him too conspicuous in the eyes of his employers and that sometimes his employers have become jealous of him because he might be attempting to take their job away from them.

On admission the patient was quite apathetic, and on the second day began to sing; and later, while in the ward, stated that a thought came to him to commit an immoral act on a fellow patient, which he did. Says that he knew the person who gave the command but that no words were spoken between them, and neither did he see the individual.

The patient had no disease insight, but thought that he had more affection for his family than formerly.

Laboratory report was a triple negative Wassermann; urinalysis, negative.

About the beginning of the year 1916 the patient began to show extreme restlessness and at times such violence that restraint became necessary. During such periods he would mutter to himself, sing aloud, curse, and often pound himself, and batter his head against the walls. He occasionally said that he received wireless messages from the officials asking him to settle his board bills. Mental deterioration has of late become more and more marked.

On May 28, 1916, a teaspoon was missed in his ward and when he was asked about it finally admitted he had swallowed it, and also admitted a few days afterwards, when a number of links in the iron bed springs of several bedsteads had been found missing, that he had swallowed them. At first his statements were not believed, as palpation of the stomach gave negative results, and as he was entirely without pain or distress of any kind, but an X-ray examination, on May 29, showed the presence of the teaspoon in the left epigastrium and five or six bed-spring links in the region of the cœcum.

On June 1, 1916, an operation by Dr. Matthews was made. The spoon was removed from the stomach and six bed-spring wires were with difficulty taken out of the cœcum. Recovery was rapid and uneventful.

The patient was quiet for a time after the operation, but he soon became restless and noisy as before. On some days mutism was present; on other days he would answer when questions were put to him, usually, however, giving random replies with verbigerations, his sentences at times showing speech incoördination and silly, disordered syntax, viz.: "I do not wish.

to die and I am not to die. I am not worthy of anything" (repeating this with a half-smiling face). "There is no land like our land. We are the native sons of this land. This is the greatest land. We know it is all true—this is all true. The truth shall make you free. It may be all so. I don't know it may be all so. It isn't anything that is so. It is all that ain't so," *ad infinitum*.

The patient seemed perfectly well, physically, after the operation, but when a second X-ray examination was afterwards made the plate showed the presence of two more links in the bowels, probably in the sigmoid.

CASE IV.—A. S., Finn, age 34, married, tailor. Admitted October, 1914. F. H.—Negative.

P. H.—Quiet and industrious; not epileptic; alcohol and tobacco in moderation. Was in Manhattan State Hospital, New York, three or four months in the early part of 1914. History of present illness unknown.

Physical and neurological examination: Inequality of pupils present (r. > l.). Slight deviation of tongue to right. Slight speech defect; left patellar reflex more lively than right. Very slight tremor of extended hands. Otherwise well developed and fairly well nourished.

Mental examination: Patient did fairly well on general survey, but did not know the name of the hospital. There was no evidence of illusions or hallucinations. He was depressed when examined; did pretty well on intelligence tests and memory of recent past, but performed test of recording faculty with some difficulty, but correctly; likewise the word-pairing test and the knowledge of the abstract, but failed on the combined idea-association and Ebbinghaus' test. There was no disturbance of idea-association. He was oriented and showed normal but slow attention. Bourdon's test was performed correctly. He stated that it was hard for him to think and complained of pain in his forehead. There was no perseveration present and no imperative ideas or obsessions; motor reactions normal; disease insight fair.

During his stay in the hospital he was usually depressed and despondent; as a rule well behaved and fairly industrious; usually slept and ate well. At times he imagined that he heard some one talking about and against him. During such periods he refused to eat and would not stay in bed. Toward the end of his stay he spent considerable time praying. The laboratory reports gave a triple negative Wassermann and negative urinalysis.

About January 23, 1916, he complained of abdominal pain, but palpation was negative in the appendix region and a careful study of the temperature did not point to peritoneal involvement until the morning of January 26, when a laparotomy was performed. He had been asked a few days previously if he had swallowed foreign objects, but denied this absolutely. On opening the abdomen the handles of two teaspoons were found protruding from a perforation of the ileum, about two inches above the ileo-cæcal opening. The patient died about 11 hours following the operation from shock and general peritonitis. At autopsy no more foreign bodies were found.



PLATE OF THE 921 FOREIGN OBJECTS REMOVED FROM THE STOMACH IN CASE I.



FIGURE OF A TUMOR (CASE 1) SHOWING SHAPES IN LEFT EPIGASTRIC WITH OUTLINES OF SAFETY PINS.



PHOTO OF X-RAY FINDINGS IN CASE III.

DRINK AND ITS CONTROL IN RELATION TO WORK AND HEALTH IN GREAT BRITAIN.¹

BY SIR ROBERT ARMSTRONG-JONES, M. D., MAJOR R. A. M. C.

The third report of the Central Control Board (Liquor Traffic), of which Lord D'Abernon is the chairman and Mr. J. C. G. Sykes the secretary, has just been published and it is one of the most important public documents issued during the war, for it deals with the vital subject of the health and the social life of the great masses of our population, which, in so far as its consumption of drink is concerned, is now under the control of this board, and the range of the board's actions covers in point of time not only the working period of the life of the people, but also indirectly those of its infancy and senility. The report has therefore a mental as well as an economic value. It bears upon the potentiality for "output of work" among the people and it may correctly be described as a report of the greatest social, industrial and economic moment and significance.

The board was instituted by act of Parliament in June, 1915, and it issued its first report during that year. The second, in 1916, contained a full account of the board's proceedings up to March of that year and the present, which is the third, indicates developments on the same lines and covers work applying to almost the whole of Great Britain. There is nothing in this report that touches Ireland, because any action on the part of the board must be preceded by a request to act from the military authorities, and up to the present so far as Ireland is concerned, applications to the board have only been made by social and religious bodies.

The duty of the board, as is well known, is to control the sale and supply of intoxicating excisable liquor in naval, military, munition and transport areas, and, practically stated, the functions of the board consist in maintaining the efficiency of the workers, which they have carried out mainly by extending the system of

¹Defence of the Realm (Liquor Control) Regulations, 1915. Third Report of the Central Control Board (Liquor Traffic). Published by His Majesty's Stationery Office, London, 1917. Price, 3d. net.

direct ownership and control of licensed premises and encouraging industrial canteens among the work-people, so as to replace the casual and inefficient "licensed victualling" of the ordinary public house, where drinking rather than eating was encouraged and where drunkenness rather than refreshment or restoration was the consequence.

The usual method of procedure adopted by the board in regard to any particular area is to receive a request from one of the War Departments that the regulations of the board might apply to it. Following upon this an enquiry is conducted by the board by means of local conferences and if sufficient reasons are found for action, the Minister of Munitions is advised to apply to the Privy Council for an order to "schedule" the district delimited.

During the first twelve months of the work of the board, no less than 30 districts had been so dealt with; the whole of Wales and the county of Monmouth being the thirtieth district to be scheduled. The whole of the area under the regulations of the board then contained a population of approximately 33,000,000. Since the first year 12 more districts, with 5,000,000 more people have been brought under the same regulations and only areas comprising a total population of about 3,000,000 now remain under the old liquor conditions and it is somewhat anomalous that 19/20 of the total population of Great Britain should be under the regulations of the Defence of the Realm Act and covered by the authority of the Board of Control (Liquor Traffic) whilst 1/20 is immune from this control.

The functions of the board are not only connected with diminishing accessibility to strong drink by reducing the hours during which its sale is permitted, but the board have power and they have used it to legalize the sale of spirits and beer of lower strength than formerly; the board now permits spirits to be diluted to 35 per cent under proof, or in the case of gin to 50 per cent under proof, and in the case of beer to that containing 2 per cent of alcohol, this beer being permitted to be sold in any licensed house or club during all hours of the day from 9 a. m. until the local closing time. For the information of the purchaser the amount of alcohol contained in medicated wines must now be clearly stated on the label placed upon the bottle. The board has used its power to close all premises not hotels, refreshment rooms or restaurants

during the hours that are not for the sale of liquor, and it has entirely prohibited Sunday opening in districts contiguous to those (Wales and Scotland) in which it was already the law to observe Sunday closing. It has entirely suspended the sale of spirits in some districts and its evening sale in others. The board also has its own inspectors and supervisors in some special areas, so that not only the quality of the liquor, but also the opportunities for its use and the conditions under which it is consumed are under the direct control of the board, and it is justifiable, after such an experience, to draw conclusions from its work. Two years and a half have now elapsed since the board commenced its work and the results have exceeded the most sanguine expectations. It was not anticipated by the most earnest social reformer—probably least of all by him—that a newly appointed committee with no previous record, working on new experimental lines and this without specific statutory instructions should have successfully completed so great a task and effected so great a change in the social life of the nation. If the aid of Parliament had been invoked through a definite campaign to limit the sale of drink to four or four and a half hours a day it would without doubt have been doomed to failure, yet the Board of Control has accomplished this task. The turmoil and the emotional excitement of war time do not tend to mental or moral inhibition nor to sobriety and orderliness of conduct. The withdrawal of the head of the house from the direction and control of family life, the enlistment of so many school teachers, the darkening of the streets in the evenings and the tendency during crises for men and women to confer together and the apparent great increase of financial prosperity due to the colossal national borrowing have all of them been conditions favorable in our belief to increased drinking, especially to the two kinds of drinking that lead to various excesses, viz., industrial and convivial. Both these forms of taking strong drink have a tendency to increase during periods of artificial stimulation, yet throughout the whole of this time there has in fact been a heavy reduction of convictions for drunkenness among women as well as men in all the areas that have been scheduled by the board. The reduction commenced with the action taken by the board and it has continued steadfastly ever since the change in the liquor control was initiated.

It is well shown diagrammatically in the charts submitted by the board that in 1914 the total number of convictions in greater London and in the cities and boroughs of Great Britain with a population of over a hundred thousand was approximately 156,000 but in 1916 this was reduced to 77,000, the corresponding figures for women being 41,000 and 24,000 respectively. The hours during which licensed houses under the board are open are the two hours for the two chief meals in the day, viz., two hours from noon during the mid-day dinner and two hours in the evening during supper. Some authorities attribute improvement to the early evening closing, but it is eminently satisfactory that the improvement continues. It is maintained by some adverse critics that convictions for drunkenness relate mainly to drunkards, but since the board's regulations have been in force in scheduled areas there has been much better time-keeping among the workmen with a consequent increase in the "output of work," also the drinking described as "soaking" with disgraceful street scenes and hurtful examples to the morals and conduct of the young have been made difficult and in many instances impossible; further there has been a greater control over convivial drinking through the stopping of "treating" and through the prohibition of credit for drinks. It has also been asserted by adverse critics that the regulations of the board have caused a diversion of drinking from the licensed house to the home and that "home drinking" has increased in consequence. The opinion of social workers, of health visitors and members of the police is directly opposed to this view and statistics of deaths from delirium tremens and from alcoholism—which would be the inevitable sequence of home drinking—do not support these views of the adverse critics. On the contrary, there is a diminution in both alcoholism and the records of delirium as there is in the statistics for drunkenness. In the work of assisting to carry out their regulations the board give full credit to the efforts of the police who have worked these new rules without friction, an acknowledgment which is supported also by delegates both from employers and employed, from labor organizations and even from representatives of the licensed trade itself as well as from those in naval, military and official civil life. It is not generally known that the board have the power to close licensed houses when on a report from the chief constable it is considered to be prejudicial

to the proper control of the liquor traffic for these premises to remain open and 85 such premises have been closed in Great Britain for the remainder of the licensing year.

The great work in favor of temperance which the Board of Control have effected has been done on rational lines and entirely because workers in munition and transport areas had to be provided with appropriate and satisfactory feeding places. It was delegated to this board to arrange, and if necessary, to provide, facilities for obtaining for workers wholesome and sufficient nourishment and it was recognized that this could only be done by vigorous action in supplying suitable nutrition and in controlling the sale of drink; both these aspects were closely related to the health of the worker and in consequence to his energy and output for work. To keep the worker physically fit and at full capacity of working power, to prevent fatigue, exhaustion or the onset of disease were the one aim of the board and by increasing the facilities for obtaining suitable meals at public houses and licensed restaurants and by establishing industrial canteens which could supply substantial meals and light refreshment at reasonable prices the board effected this desired end. The canteen system was run at first by voluntary effort through public subscriptions, supplemented as may have been necessary by a treasury grant-in-aid of one-half the capital expenditure, but the employers after a time took the place of the languishing voluntary subscriptions and later the system came to be supported by the "extra-profits" of the employers and payments were made out of revenue which would otherwise accrue to the exchequer. In government establishments the state acted as the employer and undertook the expense, leaving the board to be the responsible organizing authority, so that for the last 18 months the industrial canteens of the whole country have been under the organization and control of the board, and up to the end of March this year there were 570 canteens providing suitable nutritive material for nearly 2,000,000 of workers and in which the workers could find easily digestible, appetizing and attractive food served to them at a reasonable cost, and the extent of this system may be gathered by the fact that three-quarters of a million of money was provided out of the profit of controlled establishments apart from £12,000 made as grant-in-aid to voluntary societies and another grant made from govern-

ment funds to the national factories. As to the liquor side of the canteens with the exception of a few registered as clubs supplying one pint of light beer with a meal, they are all "dry" canteens, no intoxicants being sold.

It is difficult to overestimate the comfort accorded to workers by the establishment of industrial canteens and the gain to health is still more. The work of the board in making life contented and human in isolated factories, the fuller output of work, and the better time-keeping; the reduction of temptation to drink through the supplying of better food and the general tendency towards sobriety are some of the incidents which demonstrate a vital change in the industrial life of the nation and the board may be said to have solved the problem of the employment of men and women together and to have proved one of the most valuable "welfare" factors in the life of the industrial classes. It has not only served as a most useful civilizing influence among employés, but it has shown an example which large employers of labor cannot fail to emulate, for the industrial canteen has won its place as a permanent and essential feature of the modern factory.

This report of the board which we have now reviewed concludes with an almost romantic account of the control exercised by it over the sale of liquor in the city of Carlisle and in the district of Gretna, surrounding the Gretna National Explosives Factory. As is well known the men employed at Gretna were housed in Carlisle, and these men, together with those living in huts at Gretna, resorted in crowds to Carlisle on Saturdays. This implied that the male population of a quiet cathedral city was more than doubled by the incursion of highly paid workmen without special interests or family ties and soon the convictions for drunkenness rose from 5 per week to 42 per week, so that the board in a bold stroke decided after consultation with the local authorities to purchase practically the whole of the 200 licensed premises together with the working undertakings of the five breweries and the complete business of the wine and spirit merchants. Two of the breweries are closed and over 70 of the licensed premises, in addition the sale of spirits on Saturdays has been prohibited. Two taverns have been opened upon a new model so that the sale of intoxicating liquor in the shape of light beer could be carried on together with the sale of food, and the latter constitutes 75 per

cent of the total takings. Large halls are provided together with reading and billiard rooms, and in five selected centers of the city a complete reconstruction of the public houses is taking place: the small rooms and quiet "snugs" difficult of supervision and observation are being practically abolished. The licensed houses are all inspected and each manager is impressed with the fact that he is to have no pecuniary interest in the sale of intoxicating liquor; that his fitness is judged by the standard of sobriety and good order maintained in his house rather than by profits upon the sale of intoxicants; for his personal profits and salary are only to accrue from the sale of food. Spirits are not to be sold to persons under the age of 18 and beer only if taken with meals. Another feature of the administration is the reduction in "off-consumption" licenses, which have been reduced from 100 to 17 and a close watch is kept upon this side of the business. All joint sales of groceries and intoxicants have been brought to an end and the net result has been a marked diminution in convictions for drunkenness, the condition of the streets has become eminently satisfactory and the most encouraging reports are received on every hand as to good order and improved public behavior. The work of the Board of Control has not been carried out upon any previously known plan or type and the districts of Carlisle and Gretna have not been easy localities for experiments owing to their division into English and Scotch national boundaries each with differences of law and custom such as prevail in the two countries. At Gretna the board erected a spacious one-storied building in the center of the town and provided accommodation for the service of food and non-intoxicants, for the convenience of 200 persons. They artistically and tastefully decorated the interior and provided an outside verandah and a bowling-green and added a cinema house to serve as a place of public entertainment. The sale of liquor in grocery establishments was discontinued and one-third of the "on" license houses has been closed. Police statistics support the fact that there has been a marked diminution in the convictions for drunkenness and that public sobriety has received considerable encouragement; there has been an improvement in the condition of the streets and better behavior on the station platform. The board has the satisfactory record of an increase in the sales of food and non-intoxicants at some of these canteens

at the rate of nearly 700 per cent as compared with the increase of a little over 100 per cent in the case of intoxicating liquor; and it is proved that by extinguishing private interest in the sale of liquor and establishing control and inspection over it, it is possible to reduce to a very marked degree the excessive drinking which goes on under private management, also that when facilities are provided for recreation and for the sale of food with surroundings of decency and comfort, customers are less inclined to drink to excess. It is certain that many people frequent public houses who desire to obtain food, yet no attempt under ordinary circumstances is made to meet this demand. The experience of the Board of Control (Liquor Traffic) is emphatically in favor of a united system such as would be secured by "state management" of the licensed trade and the board deserves the whole-hearted thanks of the community for its clear, energetic and single-minded efforts to humanize labor and to perfect the laborer. These efforts have been successful beyond the most sanguine expectations and they reflect the greatest praise and credit upon the chairman, his colleagues and the indefatigable secretary.

A STUDY OF CASES OF MANIC-DEPRESSIVE PSYCHOSIS ARISING AFTER THE AGE OF FORTY.*

By R. L. WHITNEY, M.D.,

Assistant Physician McLean Hospital, Waverley, Mass.

From a morbidity standpoint we have come to look upon the period of life which begins with the 40th year and continues for a decade or longer as a more or less important one, not only by reason of its being the time when, in the general field of medicine, malignant disease has to be reckoned with, but in the mental field as well, we find, not infrequently, that psychoses arising at this time seem to have a definite tinge of chronicity. This tendency to chronicity is held by some to apply especially to the manic-depressive psychosis, a psychosis whose characteristic is recoverability from attacks occurring in the earlier periods of life.

What the actual factors are which thus modify the course and outcome of the disease seem to be little known, although a multitude of hypotheses have been offered, the principal one being, of course, the involution. Without going over the ground previously covered by the involution psychosis question, it might be permissible to call attention to the wide disparity of opinion as to what constitutes the involution and what influence, if any, it may have upon psychoses occurring during that period. This disparity of opinion is so wide as to extend from an absolute denial of its existence to the opposite extreme of being the sole etiological factor, so far as the psychosis is concerned. As recently as last year an article appeared in one of the prominent journals to the effect that the term involution adds nothing to our understanding of the disease melancholia; that "the term involucional melancholia is purely one of convenience, having no descriptive, pathological or differential standpoint." Furthermore, we have seen how Kraepelin, through Dreyfus's classic investigation, has narrowed the incidence of involucional melancholia to the vanishing point; yet, in spite of having discarded this entity, many are wont to employ the term involution, allowing the use of it as such to be

* Read at the seventy-third annual meeting of the American Medical-Psychological Association, New York, May 29-June 1, 1917.

influential in formulating judgments, especially when matters of prognosis are under consideration. Again there appear to be some individuals who, unable to accept Dreyfus's conclusions *in toto*, maintain there may be a small group of cases which, perhaps, are peculiar to the involution. There are still others who not only recognize an involution psychosis, but also profess to distinguish several symptomatic types, all having a different course and outcome.

Not only is the concept of what constitutes the involution poorly formulated, but with almost equal obscurity are the terms "menopause" and "climacteric" applied in a loose way to that time of life when it is assumed that there are organic upheavals in the circulation, ductless glands and what not; a supposition merely, since no one has as yet pointed out or pretends to know what those changes are. When it was found by statistical methods that women were more often affected at this period of life than men, it was natural that the changes resulting from the devolution of the sexual organs should be coupled up etiologically with the psychosis, and for some this unverified explanation remained sufficient. In this connection it seems remarkable that so little attention has been paid to the question whether in women at the menopause the first or recurrent mental attack is modified by it in any particular degree. The present study may throw some, though feeble, light on the matter. Somewhat later the term menopause was broadened to include those men who developed more or less characteristic depressions styled the involution type. Two notable articles, entitled "The Male Climacteric," appeared in 1910, one by Mendel, the other by Church. They characterize this period of life for men as one "in which there is a well-defined tendency to mental instability in the nature of major and minor neurotic disturbances, generally expressions showing an anxious tone of mental feeling attended with more or less depression. Those who have had earlier mental attacks are predisposed to have a recurrence at this period. On the physical side there is loss of weight and an increase of blood-pressure amounting to more than can be attributed solely to the age and general physical condition of the patient. As improvement sets in, the arterial tension subsides to some degree. The gastrointestinal activities being reduced, there are a variety of neurasthenic com-

plaints, headaches, oppressed feelings in the chest, sudden apprehensions, vertigo, etc." In conclusion, Church finds, that, "after running a variable course, . . . the patients regain a fair degree of their former mental and physical characteristics and go on comfortably, with naturally some reduction of their mental capacities." In this description of the clinical manifestations of the male climacteric one can see many points characteristic of the manic-depressive depression, and the question arises whether much of the symptomatology which is attributed to the involution may not in reality arise from a manic-depressive basis. Not all women and certainly not all men are disturbed in this way during the course of the physiological devolution.

We find a similar vagueness with respect to the etiological factors which underlie the manic-depressive attacks occurring at this period. Here again the literature is full of hypotheses, but as yet the practical application of them does not seem to justify the drawing of conclusions as to the rôle played by any group of factors. The great alterations in bodily weight suggested to Kraepelin the presence of metabolic disturbances, but he adds significantly, that on this subject there is not much knowledge which can be used. Moreover, Folin, in his studies at the McLean Hospital, where the diet was accurately determined, concludes: "While variations from the standard are frequent, it is not possible to identify any one metabolism peculiarity with any particular form of mental disease." Since no pathological lesions are found, it is inferred by some that psychical factors are the more influential in the etiology. Those who see through psychogenetic glasses alone tell us that men, as well as women, are apt to merge into an anxiety neurosis at the time when their potency diminishes. Finally some biochemists, working in the field of the glands of internal secretion, have compared the symptoms met with in the psychoses of the involution and those characteristic of juvenile dementia, notably Lomer, who concludes that involution processes and the deterioration processes of earlier life depend on the same causes, namely, pathological alterations of the secretions of the sexual organs.

Among other factors serving to complicate the involution psychosis problem is that of arteriosclerosis. If its presence is so slight as to be almost negligible, we find there is a tendency to pick out certain cases from the involution group and set them apart

in the so-called pre-senile. From this it is but a step to the senile, with no sharp delimitations anywhere. Without going into details of the discussion as to the rôle which arteriosclerosis plays in the involution psychosis, it may be said that both Kraepelin and Dreyfus caution against inferring the presence of dementia from appearances alone in those cases which have continued many years. The psychotic disease *per se* is not responsible for whatever dementia may be present, but that it arises from some intercurrent complication, and this is often arteriosclerosis. In the late manic-depressive attacks it is frequently an accompanying factor; if not already present, the ground plan for its development, in the depressed states especially, is laid in the worry and anxiety, both recognized contributing causes of the disease. We find, however, that there is a tendency to assume that certain symptoms are the result of arteriosclerosis, when the existence of such is more or less conjectural. By and large it seems to be the consensus of opinion that one is not justified in establishing the presence of cerebral arteriosclerosis from the pressure of systemic arteriosclerosis alone. This was clearly demonstrated by Mitchell and Southard, who found in a series of 23 autopsies, among which were 11 manic-depressions clinically, that there was no regularity nor relation between the arteriosclerotic invasion of the systemic and cerebral vessels. The analysis further suggested that even in the presence of cerebral arteriosclerosis without gross brain lesion, the relation between it and the mental symptoms is not as close as is often assumed. It would appear that the only safe criterion would be the evidence presented by the neurological findings.

Although the fundamental factors which are involved in the involution problem are more or less obscure and poorly formulated, there are, nevertheless, certain points with reference to the manic-depressive psychosis whose attacks occur at the involution period which seem to have become established through observation and experience. Numerous investigations of the subject which have been made, although differing in detail, are in the main quite uniform in their general conclusions. Thus Hösslin, who reviewed 288 cases, found that the late occurring attacks tended to become chronic, and, although they did not terminate in dementia, often showed a mental defect in the form of emotional debility. He feels that the prognosis for cases with first attack after 40

should be guarded. Gaupp analyzed 300 cases, of which 51 were manic, the remainder depressions. The manic phase occurred more frequently with men. The course varied from single to circular attacks, the latter having a tendency to continue into advanced life. Those cases showing retardation and inadequacy as the principal symptoms recovered; while those showing anxiety, hypochondriasis, volubility, etc., tended to persist until deterioration set in. Fauser, in addition, found that certain depressions occurring in early life had practically the same features as those occurring at the climacteric period. Stelzner, in 200 cases, found 18 of climacteric melancholia, all of which recovered. In Dreyfus's series also, all the cases with first and single attack at the involution period recovered. Dreyfus further concludes that there is no special relation between age and the duration of attack. Single depressions are more frequent with no corresponding manic phases. The attacks are of longer duration and there is some difference in the character of the delusions. Sixty-six per cent recovered, 8 per cent demented (the result of arteriosclerosis), 25 per cent died unrecovered. Kraepelin, in accepting Dreyfus's conclusions that involution melancholia as an entity does not exist, adds that the peculiarity of the late occurring attacks consists in the fact that they develop in advanced life and have a somewhat different clinical picture.

In accordance then with the views commonly held, in cases of manic-depressive psychosis with late onset, depressions predominate, women are more often affected, the duration of the attack is longer, a different symptom complex develops, characterized by anxiety states, feelings of unreality, and, in the presence of mental clearness, absurd delusions, often of a somatic nature, are expressed without adequate effect.

Having these characteristics in view, an analysis of 150 cases of manic-depressive psychosis with first attack at or after the age of 40 has been made and comparisons drawn. In order not to burden the communication with the details of case histories and statistics, the summaries are given only. In accord with other studies it was found that depressions predominated, although there were 22 manic cases. The proportion of men to women, 69 to 81, is more nearly equal, but this difference is largely an artefact resulting from the fewer accommodations in the hospital for men, and also because there is some selection in the type of cases ad-

mitted. There were 49 complete recoveries, which have, for the most part, been verified. This recovery rate is one-third of the total cases and conforms with Kraepelin's estimate for the manic-depressive group as a whole, but is considerably less than that of Dreyfus's series. Possibly the recovery rate in the present group would be somewhat higher if the subsequent history of the 76 patients who left the hospital unrecovered were known. As a matter of fact five are known to have recovered, and one of them recently returned to the hospital, after a five-year interval, in the second depression which is in all respects similar to the first one. Excluding five cases of exceptionally long duration, one of whom was 14 years depressed and recovered after five months' manic phase, the average duration is eight and one-half months. This is certainly not an unusually long duration. The menopause was coincident with onset in 18 cases only. Seven of these recovered. In neither those who recovered nor in those who did not was there a particular symptom complex which seemed to be due to the menopause as such. Evidence of arteriosclerosis was positive in one-fifth of the cases and was present in eight of the recoveries. Seizures were recorded in seven instances, and in one who recovered it is noteworthy that a paresis and an aphasia developed and passed off while the patient was in the hospital. Recurrent attacks of depression and excitement are known to have occurred in 18 instances.

Assuming the anxiety-unreality complex and the expression of absurd ideas in the presence of mental clearness to be pathognomonic for these late depressions, particular attention was paid to their frequency in this series, especially in those cases which recovered. Nearly one-half of the patients at some period of their illness manifested an anxiety state, and it is significant that it was present in more than one-third of the cases which recovered. Feelings of unreality as well as the expression of absurd ideas were so infrequent as to have weight only by their absence. An important factor which other writers have not seemed to lay much stress upon is the presence or absence of clouding of consciousness. As noted above, it is held that mental clearness is the rule. The present study finds, however, that one-fourth of the total cases, and nearly one-half of those who recovered, were definitely clouded. Prognostically, this may have some value; at

least we get the impression at McLean that those cases which show confusion are apt to have a more favorable outcome. Finally, although there may not be a fundamental metabolism disorder at the bottom of the involutorial disturbances, nevertheless it is a matter of experience that during the course of a depression or an excitement there is often a marked fluctuation in body weight. In the present series of 49 recoveries, 32 patients gained 10 or more pounds, while those who remained unrecovered did not show so favorable a proportion, some even lost weight. It would be presumptuous to correlate this variability in weight with the physiological involution, but from a prognostic standpoint it would seem that if those patients who are at the involution period with their first mental attack preserve their ability to metabolize abundant nutriment, their prospects for recovery are more favorable. It is not to be inferred that a gain in weight always means a favorable outcome for the psychosis, because, as is well known, there are many cases in which the increase in weight is out of all proportion to the mental improvement and where it would seem the adiposity became a component of dementia. Prognostically, however, in the present series, it was noted that those cases which were destined to recover began to gain in weight some three or four weeks before mental convalescence set in.

From the foregoing the following summary is made:

The factors which underlie the physiological involution are obscure. Because of this obscurity it has not as yet been determined that manic-depressive attacks first occurring at the involution period are modified by it in any unusual way.

First attacks of manic-depressive psychosis occurring at or after the age of 40 conform to the manic-depressive group as a whole with regard to recoverability and duration. Depressions predominate. Women are more often affected, but the menopause does not modify the course in any particular degree.

Although no pathognomonic symptom complex in the nature of pure anxiety-unreality states were noted in this study, a good proportion of cases did show anxiety, but its influence upon outcome is not remarkable.

Prognostically, those cases which during the course of their illness show mental confusion and which are capable of gaining bodily weight seem to have a more favorable outlook for recovery.

THE VALUE OF OUT-PATIENT WORK AMONG THE INSANE.*

By A. WARREN STEARNS, M. D.,

*Assistant Professor of Neurology Tufts Medical School and Assistant
Physician Psychopathic Hospital, Out-Patient Department,
Boston, Mass.*

One of the most important developments in the caring for patients with nervous and mental diseases has been the extension of out-patient work by state hospitals. This work is new enough so that it seems worth while for those engaged in it to compare notes frequently. This paper aims to describe and to discuss briefly the work of the Out-Patient Department in the Boston Psychopathic Hospital, this department now being in its fifth year, and so one of the oldest.

The clinic is held daily from 2 to 4 p. m., and Wednesday evenings.

There are three departments, namely:

1. Medical.
2. Social.
3. Psychological.

The medical department is made up of a part-time or visiting staff, who do only out-patient work, assisted by internes assigned from the house staff.

The social-service and psychological departments do both house and out-patient work and are not exclusively attached to the out-patient department.

Upon coming to the hospital, the patient is met by a clinic manager, who takes the history, and directs the patient to the different departments. Much time is saved by supplying social agencies with a blank history form so that most of their patients come with a complete typewritten history. These patients can then be referred directly for physical examination, and if the problem is one of defect, to the psychologist, reaching the doctor when completely examined. If the problem is not one of defect or is doubtful, the

* Being contributions of the Massachusetts Commission on Mental Diseases, Series of 1918. Read at the seventy-third annual meeting of the American Medico-Psychological Association, New York, May 29-June 1, 1917.

patient is referred to the doctor after the history has been taken and all physical examination made. A Wassermann blood test is made on every patient. As the clinical manager is attached to the social-service department, she has in mind the social needs of each case, and can call the attention of the social-service department to such need, but most patients are referred to the social-service department by the doctor after his interview. If diagnosis is impossible and more observation necessary, or if the patient has a psychosis, he is now referred for admission to the house.

During the last hospital year, October 1, 1915, to October 1, 1916, 1485 new patients were received at the department, and 9261 total visits were made.

The sources from which these new patients came were as follows:

Psychopathic hospital (after care).....	413
Charitable organizations	402
Other hospitals	193
Own initiative	167
Doctors	104
Courts	97
Schools	69
Miscellaneous	40

1485

The following diagnoses were made:

Feeble-minded	298
Sub-normal	21
Retarded	68
<hr/>	
Alcoholic psychosis	47
Dementia præcox	72
General paralysis	24
Manic-depressive insanity	30
Senile psychosis	3
Psychopathic personality	29
Unclassified and miscellaneous.....	34
<hr/>	
Alcoholism	239
Syphilis	43
Psychoneurosis	73
Chorea	149
	11

Epilepsy	37
Speech defect	55
Drug habitués	5
Constitutional inferiority	5
Delinquency	41
Organic nervous disease	25
No nervous or mental disease.....	105
Non-syphilitic	131
(These were members of families of syphilitic house patients sent in for blood examination.)	
Deferred and miscellaneous	150
<hr/>	
Total	1485

About one-half of the patients are problem children, the figures of January, 1917, illustrating this:

Male adults	22
Female adults	49
Children	65
<hr/>	

136

Although to quite a large extent this is a consultation clinic, and diagnosis is the essential object sought, the following different forms of treatment are used:

Hydrotherapy.—The hospital is equipped with a standard hydrotherapeutic room, to which out-patients are referred, usually being given three treatments a week.

Psychotherapy.—Patients requiring psychotherapeutic treatment are referred to special workers along this line.

Social-Service.—Some patients are referred for more investigation to aid diagnosis, others for employment, a special worker being maintained who has charge of the latter. Many are referred for supervision, it being found that certain tractable insane persons, or those with abnormal personalities, can get along satisfactorily in the community with a varying degree of social-service supervision.

Speech Training.—A special clinic for speech defects is in operation for this class of cases, being held two afternoons a week.

Men's Club.—An informal club, with weekly meetings, has been organized principally to interest and help alcoholic patients, but other types are admitted. The active membership is now 86 men. A women's auxiliary, composed of wives of members, has also

been organized. This club seeks to furnish a certain amount of entertainment and recreation to keep the patients' association with the hospital, and to encourage members to help each other.

Anti-Syphilitic Treatment.—All patients with a positive Wassermann or evidence of syphilis are referred to special workers who have charge of the syphilis problem.

House Observation.—As stated above, patients needing observation or temporary care are referred directly to the house.

An important aid to efficient work is the follow-up system. At each visit of a patient a slip is sent to a special follow-up worker, giving date of next visit desired. If the patient does not report on that date a formal printed letter is sent as a reminder. If this does not bring the patient the telephone is tried, and if unsuccessful, the patient is visited by this worker.

Of 577 new patients told to return, 312 came without, 48 with, a reminder.

Of 375 house cases referred to the out-patient department, 184 came without, 38 with, a reminder.

Of 6635 total visits, 5852 came without, 783 with, a reminder.

The exact expense of the out-patient department cannot be given at this time, but appears to be between \$1.50 and \$2.00 a visit. This should be compared with the 18 cents to 57 cents per visit, as given by Mr. Davis in a report of a committee on out-patient service of the American Hospital Association.

For some time the writer has been of the opinion that a great many of the patients admitted to the house for 10 days' observation could be as well handled by the out-patient department, and with this in mind 100 consecutive house admissions were examined and the opinion formed that 35 of these cases could have been cared for as well by the out-patient department without house admission. These are largely cases where diagnosis is the object sought. Obviously an out-patient visit would be much less expensive than 10 days' house observation. From the experience of the past five years, a few points seem of special importance:

1. Inasmuch as the clinic is quite largely for consultation, there must be a well-trained and mature psychiatrist in charge. The large proportion of neurological material commonly forming an out-patient department makes some special training in this branch necessary.

2. Lack of adequate facilities for caring for psychoneurotics is apparent, it being almost impossible to get free beds for this class of patients.

3. Need of elaborate equipment and many workers to carry on psychiatric out-patient work.

The examination is so complex that unless several persons can be engaged at once, few patients can be examined in an afternoon. This makes it seem wiser to hold out-patient clinics at hospitals where entire staff will be available, rather than in outlying districts. Prejudice of people against going to hospitals does not seem to be a sufficient argument to warrant the waste of effort entailed by sending a staff of a hospital to distant points.

4. The important position of social-service in out-patient work.

Doctors must realize this and give the social worker more recognition, just as a trained nurse or psychologist goes into certain detail better than a doctor, so a trained social worker is fitted to take charge of that branch of our work under medical supervision.

5. Out-patient departments are an advantage: First, to patients, in that many prefer staying at home and are happier and better off there, as are their families; second, to the state, in that home care can save much expense under supervision. With stimulated and instructed family interests, many now a burden to the state may be self-supporting; third, to the doctors themselves, as they see a vast variety of nervous and mental disease not seen at the hospitals and so get a broader training. It also furnishes a place where psychiatry can be kept pure, as doctors and special workers connected with social agencies and courts get a one-sided experience and do not become good psychiatrists. By working part-time in out-patient clinics connected with hospitals, they can keep in touch with the whole field.

DISCUSSION.

DR. BRIGGS.—Mr. President, I should like to say that the out-patient departments as organized in Massachusetts and now in New York, constitute the first organized effort for the prevention of insanity in this country. Out-patient departments have been used in Massachusetts in two hospitals for many years. When the State Board of Insanity asked the State Hospitals of Massachusetts, one and all to establish them, the response was immediate and successful, and to Dr. Stearns should be given the credit of this success in large measure. He visited each hospital, he

helped in the organization, in the forms used in the different records and in many ways the assistance given by him was responsible for this success of the movement. It was predicted that it was more or less of a fad and that it would soon die out, but instead of that it has grown steadily to very large proportions; and I think that every superintendent who has an out-patient department has felt that he is doing good work in the prevention of insanity. Physicians in the country towns where the clinics are held bring patients for consultation, or attend the clinics and ask the superintendents who have had much experience in the care of the insane, advice concerning their cases. The early patients attend the clinics and the discharged patients report there, obviating the necessity of return to the hospital; and, therefore, I feel that every state should organize out-patient departments as a preventive measure.

DR. OSTRANDER.—Mr. President, I would like to state that New York and Massachusetts are not the only states that are doing work of this kind. There is an out-patient clinic in connection with the Psychopathic Hospital at Ann Arbor, and the Kalamazoo Hospital, of which I have charge, have four out-patient departments, and these are conducted with out any help whatever from the state of Michigan. There is no state provision for financing any such thing. We have gone to county officers and asked permission to start these clinics in their midst and they have paid the expense, and I am not sure but that is the best way. The plan is no longer experimental, we no longer have to ask the counties to let us come to them and establish these clinics. They are sending word to us asking us to come to them. The idea is popular out our way, and I believe it is doing a great deal of good. I hope Dr. Briggs will hereafter add Michigan to the states he has already named as doing work in this line.

DR. BRIGGS.—Mr. President, I referred to out-patient departments as a state policy and my remarks should be regarded as applying to that proposition only.

THE PRESIDENT.—This work is actively progressing in the state of New York. Every hospital of this state caring for the insane has its out-patient department, and considerable embarrassment has arisen from the fact that our clinics are simply overwhelmed by the numbers of patients calling for advice in regard to treatment.

During the past month in our city of Binghamton, every Monday afternoon our clinic has cared for many patients and the members of the hospital staff who have undertaken to carry it on have found it a serious task. We feel that unless the state comes to our rescue and gives us more money and more help we shall not be able to carry the clinics anywhere nearly as far as they should be carried in our part of the state. I think Dr. Pilgrim might give us some information on this subject as Chairman of the New York State Hospital Commission.

DR. PILGRIM.—Mr. President, I can only say that every hospital has from one to four clinics of this kind. At Poughkeepsie they have one in the city itself, another at Peekskill, one at Mt. Vernon, and we are about to start another in Yonkers. As Dr. Wagner says, the great trouble is that owing to vacancies on our medical staffs we are unable to meet the demands which have been urgently placed before us. We could, if we had a sufficient number of physicians, conduct, with success, a clinic or an out-patient department in every city of the state; but we are now so short of medical men as to make this impossible.

DR. BRIGGS.—Mr. President, I would like to ask Dr. Houston to say a word about starting these clinics; how after starting one or two he had applications to start others.

DR. HOUSTON.—Mr. President, the Northampton State Hospital holds clinics, one each week, in three cities besides at the institution itself. Many cases are seen at these clinics that would never come to the hospital, and our sphere is thus widely extended. Furthermore, the public has shown its realization of our intent and efforts, and thus the hospital has been placed on a better footing with the public. This was discussed so thoroughly at our meetings a year ago that it hardly seems advisable now to repeat what was said at that time.

I beg to say that I cannot agree with Dr. Stearns that the study of medicine or practice of medicine unfits a person for the position of social worker. It may be true, as Dr. Stearns' experience, has shown, that non-medical persons may have a special adaptability for such work, but if such adaptability is also possessed by a medical person, such individual is correspondingly better fitted for the position of social worker in a state hospital. The social worker mentioned by Dr. Stearns seems to be able to make "snap diagnoses" of mental cases. She would be better able to make diagnoses if she were a physician with several years of experience.

The Northampton State Hospital was one of the first in the country to employ a woman physician for this work, the date being October, 1911. Undoubtedly there have been others who began earlier, but this was one of the earliest, and I have yet to find a social service worker more capable than the officer mentioned, not because she is a medical woman necessarily, but because there is combined in one individual an adaptability to do social service work with the qualifications and experience of a medical officer.

DR. STEARNS.—Mr. President, just a word about the expense. I believe the average cost of out-patient work varies from 18 cents to 57 cents per visit. Our work has cost more than that; it has averaged \$1.50 per visit. Of 9200 visits some of which were not more than five minutes in length, the average cost to the state was \$1.50; so that there is something to be said along the lines of economizing and yet this appears to be greater economy than State Hospital care.

As to the social service work, I believe physicians make very good social service workers, and medical training is an excellent background. I have no difference with Dr. Houston in this regard. I merely wanted to say that it was perhaps too much to ask a person to go through a medical school in preparation for social work; that physicians doing all sorts of work could not do better in this line than others, and I think social service work can be done by a less highly trained and less expensive person.

RESULTS IN TREATMENT OF PARESIS BY INUNCTIONS OF MERCURY AND DRAINAGE OF THE CEREBROSPINAL FLUID.*

By ALAN D. FINLAYSON, M. D.,

Senior Assistant Physician, State Hospital for Insane, Warren, Pa.

The progress of our knowledge of the etiology of paresis, from a state of obscurity up to the present time, marked by the researches of Metchnikoff and Roux, Schaudin, and Noguchi and Moore, is a record which is familiar to all and does not warrant a repetition here. The lumbar puncture of Quinke, the application of the Wassermann reaction to the blood and spinal fluid, the globulin tests, cell count, and the Lange colloidal gold reaction are also familiar procedures that have opened avenues of investigation which were unknown only a few years since. As a result of a known etiology and accurate means of diagnosis serologically there has been a marked increase in the interest in the treatment of paresis.

Some of the methods of treatment have not proved as successful as one might wish, but the inspiring feature of the matter is that physicians dealing with this great problem are not now willing to rest on their oars, saying there is nothing we can do, but are working energetically, and out of these efforts some good results are sure to come. Such results are being reported in one state where the commonwealth has appropriated sufficient money and has appointed a special investigator to superintend the intensive treatment of paresis.

All observers of this disease are of the opinion that if it is to be successfully combated it must be diagnosed early and treated energetically. The agents most in favor for the past few years have been salvarsan and neosalvarsan, and, since the war shut off the supply of these, arseno-benzol and diarsenol. The two great obstacles in carrying out the foregoing advice of early diagnosis and

* Read at the seventy-third annual meeting of the American Medico-Psychological Association, New York, May 29-June 1, 1917.

energetic treatment are, first, the scarcity of men who are sufficiently trained to recognize the early manifestations of the disease and sufficiently skillful to use the agent when the diagnosis is made; and, second, the financial inability of a vast number of patients to secure the treatment. These obstacles do not obtain in large centers where skilled diagnosticians reside and where dispensaries supply the medicinal agents free or at a nominal price.

That syphilis with its subsequent ravages on the nervous system is not as wholly confined to urban population as was once supposed is a fact that is well known to workers in state institutions drawing largely from rural communities. The number of paretics admitted to the Warren State Hospital, residing in rural communities, is nearly as large as the number coming from the cities or larger towns.

The Swift-Ellis form of salvarsan medication was tried at this hospital for two years following its first presentation in the literature, and the indifferent results obtained did not justify its continuation. These results corroborated the opinion expressed by Sachs and many others that whatever benefit was obtained came from the intravenous administration of the drug. Further proof of this has been given in Massachusetts where salvarsan or allied products have been used only intravenously.

When Gilpin and Early¹ presented in 1915 the favorable results of their investigation with inunctions of mercury and drainage of the spinal fluid, the procedure appealed to the writer as opening a field for further investigation which might possibly furnish a method of treating paresis which could be used by the average practitioner with a minimum of danger and at an expense that would not be prohibitive to anyone.

To carry out this idea a certain number of paretics who were available for treatment were selected, and other cases were added later as admitted. The investigation covered by this report extended over a period of 15 months, although all of the patients were not under treatment during the entire time. In all, 20 patients were treated. Fourteen of these were selected for this report; the others were not used because the patients were discharged from the hospital or died less than four months after treatment was begun, and it seemed that this period was a minimum length of time on which to make observations.

The method pursued was similar to that of Gilpin and Early, but differed in this respect, that the patients were given daily inunctions of mercurial ointment 50 per cent, beginning with a dram and gradually advancing to three drams. The surface of the body was divided into eight areas, and the different areas used consecutively so as to avoid an unnecessary dermatitis in those susceptible. In this way any given area was used only once in eight days. When the amount of mercurial ointment used reached three drams daily considerable difficulty was experienced in making the skin absorb it. To overcome this two areas instead of one were used each day. One patient (No. 8 of the series) reacted with such a violent dermatitis that the treatment had to be abandoned for several months. Later, no such reaction occurred, and the treatment was resumed.

The spinal fluid was withdrawn at approximately 10-day intervals. From 20 c. c. to 50 c. c. were withdrawn, the amount depending on the pressure and rapidity of the flow. The first 5 c. c. were reserved for serological examination and the remainder for chemical tests for the presence of mercury. Most of the lumbar punctures were done with the patient sitting on a chair with the elbows on the knees and the back bowed out. The site of the puncture was the space between the second and third lumbar vertebrae and the area was prepared by disinfecting with seven per cent tr. iodine. The needle was boiled, cooled in alcohol, and thoroughly rinsed with distilled water. The routine observations were: On the blood, the Wassermann reaction; on the spinal fluid, a Wassermann reaction, globulin test, cell count, and colloidal gold reaction. The spinal fluid used for the cell count was the first withdrawn, and was diluted at once in a red cell pipette 1-100 with acetic acid tinted with methyl violet and thoroughly shaken. In the Wassermann tests on the blood and spinal fluid the technic observed was that reported in detail by Weston.² When the term positive is used, + + + + is meant. In testing the spinal fluid for mercury, only minute amounts were expected, so that the spinal fluids of all patients were grouped to the amount of 500 c. c. and this tested. The method of Vogel and Lee³ was used to determine the presence of mercury.

The following are short abstracts of the cases treated, with accompanying tables of the serological findings during treatment:

ABSTRACT OF CASES.

CASE 1.—C. E. (No. 7690), female, married, housewife, no children, three miscarriages; date of infection unknown; no treatment; duration of symptoms, four years prior to present treatment; convulsions, two years prior to present treatment; physical examination showed knee reflexes exaggerated, pupils unequal, irregular and light reaction diminished; original Wassermann positive in both blood and fluid, globulin test positive, no cells per c. mm., and gold solution 5555431000; diagnosis, paresis, dementing type. Result: Salivation occurred in seven weeks; after six months' treatment patient showed no improvement mentally or physically, but many negative findings serologically; treatment terminated at death.

Autopsy showed no pathological conditions which might not be found in untreated cases. The findings were as follows: Miliary gummata of pituitary; hypertrophy of the calvarium; chronic pachymeningitis (externa); membranous leptomeningitis; cerebral hemorrhage; cortical atrophy; chronic ependymitis; cortical edema, gliosis, and infarction; cerebral arteriosclerosis; satellitosis; pigmentation of ganglion cells; gliosis of the cord; pigmentation of the anterior horn cells.

SEROLOGICAL RESULTS. CASE 1.

Date of Puncture.	Blood.	Fluid.	Noguchi Glob.	Cells.	Gold Sol.
Feb. 5, '16	Pos.	Pos.	Pos.	4	5555541000
Feb. 16, "	"	"	"	12	5555554110
Feb. 26, " .....	"	....	....	..	.....
Mar. 9, "	"	Pos.	Pos.	6	5555552100
Mar. 25, "	Neg.	"	"	0	5555543100
Apr. 6, "	"	"	"	0	0012000000
Apr. 15, "	"	"	"	20	0023200000
Apr. 25, "	"	"	"	92	2233210000
May 6, "	"	Neg.	"	28	1122100000
May 17, "	"	Pos.	"	..	1112100000
May 26, "	"	"	"	..	0121000000
June 7, "	"	"	Neg.	..	1233221000
June 21, "	Pos.	"	Pos.	..	5555443100
July 1, "	Neg.	"	Pos.	..	4433310000
July 12, "	"	"	Neg.	..	5554431000
July 22, "	"	Neg.	"	..	0001121000
Aug. 1, "	"	Pos.	"	..	0001210000
Aug. 4, " Death.					

CASE 2.—G. G. (No. 7819), female, age 29, married, housewife, no children, one miscarriage; date of infection, probably 15 years prior to present treatment; no medication; duration of symptoms, six years prior to pres-

ent treatment; convulsions, six years prior to treatment; physical examination showed uncertain gait, positive Romberg, knee reflexes exaggerated, pupils unequal, irregular, and practically stiff, original Wassermann positive in both blood and fluid, globulin test positive, 30 cells per c. mm., and gold solution 5555210000; diagnosis, paresis, dementing type. Result: Salivation did not occur; after five months' treatment the patient showed no improvement mentally or physically, and the majority of serological findings remained positive; treatment terminated at death. No autopsy.

SEROLOGICAL RESULTS. CASE 2.

Date of Puncture.	Blood.	Fluid.	Noguchi Glob.	Cells.	Gold Sol.
Feb. 5, '16	Pos.	Pos.	Pos.	80	5555410000
Feb. 16, " .....	.....	.....	.....	..	.....
Feb. 26, "	Pos.	Pos.	Pos.	120	5555554200
Mar. 9, " .....	.....	.....	.....	..	.....
Mar. 25, "	Pos.	Pos.	Pos.	1	5555544210
Apr. 6, "	"	Neg.	"	0	5555442100
Apr. 15, "	Neg.	Pos.	Bloody.	6	Bloody.
Apr. 25, "	Pos.	"	Pos.	5	5555555100
May 6, "	Neg.	Neg.	Neg.	0	5555511000
May 17, " .....	"	.....	.....	..	.....
May 26, "	"	Pos.	Pos.	..	5555542100
June 7, "	Pos.	"	"	..	5555543100
June 21, "	"	"	Neg.	..	5555555320
July 1, "	"	"	Pos.	..	5555552100
July 12, "	Neg.	"	"	..	5555555310
July 14, " Death.					

CASE 3.—L. D. (No. 8596), female, age 32, single, waitress, one abortion; date of infection, 12 years prior to present treatment, no medication; gonorrheal infection, seven years prior to treatment; duration of symptoms, about two years prior to treatment, consisting of inability to work, somatopsychic ideas of a depressive nature, and some memory defect; no convulsions; physical examination showed patellar reflexes exaggerated but equal, pupils equal and regular and having a good reaction to light; original Wassermann positive in both blood and spinal fluid, globulin test positive, 30 cells per c. mm., and gold solution reaction 5555552100; this patient received five doses of neosalvarsan by the Swift-Ellis method during the six months preceding the present treatment with no improvement mentally or physically, or change serologically; diagnosis, paresis, grandiose type. Result: Salivation occurred in three weeks; after seven months' treatment patient showed no improvement mentally or physically, and the majority of serological findings were positive. Treatment terminated by discharge from hospital.

SEROLOGICAL RESULTS. CASE 3.

Date of Puncture.	Blood.	Fluid.	Noguchi Glob.	Cells.	Gold Sol.
Feb. 5, '16	Pos.	Pos.	Pos.	120	5555531000
Feb. 16, "	"	"	"	48	5555542100
Feb. 26, "	"	"	"	2	5555554100
Mar. 9, "	"	"	"	12	5555555100
Mar. 25, "	"	"	"	0	5555555220
Apr. 6, "	"	"	"	0	5555543100
Apr. 15, "	"	"	"	0	1244210000
Apr. 25, "	"	"	"	3	5555552100
May 6, "	"	"	"	0	1224210000
May 17, "	Neg.	"	"	..	5555541000
May 26, "	"	"	"	..	5444210000
June 7, "	Pos.	"	"	..	5555531000
June 21, "	"	"	Neg.	..	555555310
July 1, "	"	"	Pos.	..	555555310
July 12, "	Neg.	"	"	..	555555210
July 22, "	Pos.	"	"	..	5555553210
Aug. 1, "	"	"	Neg.	..	5544432110
Aug. 12, "	"	"	Pos.	..	5555443100
Aug. 23, "	Neg.	"	"	..	5555552100
Sept. 2, "	Pos.	"	Neg.	..	555555321
Sept. 13, "	Neg.	"	Pos.	..	5555553211
Sept. 16, " Discharged.					

CASE 4.—M. K. (No. 8659), female, age 47, married, housewife, no children, one miscarriage; date of infection unknown, no treatment; duration of symptoms, two years prior to present treatment, consisting of grandiose ideas, memory defect, inability to perform her household duties, and violence toward her relatives; no convulsions; on admission was euphoric, emotionally unstable, showed defects of apprehension, memory and attention, and was partially disoriented; physical examination showed patellar reflexes exaggerated and unequal, a fine tremor of lips, tongue, and hands, pupils equal, irregular, and having a sluggish reaction to light, and articulation impaired; original Wassermann positive in both blood and spinal fluid, globulin test positive, no cells per c. mm., and a gold solution reaction of 5555544110; diagnosis, paresis, grandiose type. Result: Salivation occurred in 14 months; after 15 months' treatment patient shows increased dementia, almost constant confusion and disorientation, and has had a series of convulsions; no improvement in physical signs, and few negative serological findings have been obtained. Patient still under treatment.

SEROLOGICAL RESULTS. CASE 4.

Date of Puncture.	Blood.	Fluid.	Noguchi Glob.	Cells.	Gold Sol.
Feb. 5, '16	Pos.	Pos.	Pos.	18	5555521000
Feb. 16, "	"	"	"	18	5555554310
Feb. 26, "	"	"	"	2	5555554100
Mar. 9, "	"	"	"	12	5555555100
Mar. 25, "	"	"	"	0	5555542100
Apr. 6, "	"	"	"	70	5555533100
Apr. 15, "	Neg.	"	Bloody.	12	Bloody.
Apr. 25, "	Pos.	"	Pos.	0	5555555211
May 6, "	"	"	"	90	5555531000
May 17, "	"	"	"	"	5555555210
May 26, "	"	"	"	"	5555554310
June 7, "	"	"	"	"	5555542100
June 21, "	"	"	Neg.	"	5555552100
July 1, "	"	"	Pos.	"	5555543100
July 12, "	"	"	"	"	5555553100
July 22, "	"	"	"	"	5555555210
Aug. 1, "	"	"	Neg.	"	5555543110
Aug. 12, "	"	"	"	"	5555542100
Aug. 23, "	"	"	Pos.	"	5555552100
Sept. 2, "	"	Bloody.	Bloody.	"	Bloody.
Sept. 13, "	"	Pos.	Neg.	"	5555544311
Sept. 23, "	"	"	"	"	5555543111
Oct. 4, "	"	"	"	"	5555553210
Oct. 14, "	"	"	Pos.	"	5555555211
Oct. 25, "	"	"	Neg.	"	5555552111
Nov. 3, "	"	"	Pos.	"	5555532100
Nov. 13, "	"	"	"	"	5555553211
Nov. 24, "	"	"	"	5	5555553210
Dec. 4, "	"	"	"	"	5555555321
Dec. 13, "	"	"	"	0	5555532100
Dec. 23, "	"	"	"	0	5555431100
Jan. 3, '17	"	"	"	0	5555532110
Jan. 13, "	"	"	"	0	5555543100
Jan. 23, "	"	"	"	0	5555553111
Feb. 6, "	"	"	"	0	5555544210
Feb. 15, "	"	None taken.			
Feb. 26, "	"	Pos.	Neg.	2	5555555321
Mar. 8, "	"	None taken.			
Mar. 17, "	"	Pos.	Pos.	1	5555553210
Mar. 27, "	"	"	"	0	4433310000
May 4, "	Neg.	Neg.	"	2	5554422100

CASE 5.—L. M. C. (No. 8754), female, age 32, divorced, domestic and prostitute, no children, one miscarriage, used alcohol to excess; date of infection unknown, treatment unknown; duration of symptoms, two and one-half years prior to present treatment, consisting of disorderly conduct, persecutory delusions, auditory, visual, tactile and gustatory hallucinations, memory defect, and inability to work; on admission was occupied with her delusions and hallucinations, mildly grandiose, showed disturbance of memory and attention; physical examination showed slight Rombergism, speech defect, patellar reflexes equal and exaggerated, Argyle Robertson pupils, tremor of lips, tongue, and hands, and fine line tremor and elisions in written productions; original Wassermann positive in both blood and spinal fluid, globulin test positive, no cells per c. mm., and a gold solution reaction of 555553000; this patient received four injections of neosalvarsan by the Swift-Ellis method, nine months before the beginning of the treatment under discussion, with no apparent benefit mentally or physically, and a change in the serological findings on only one occasion; diagnosis, paresis, grandiose type, plus alcoholism. Result: Salivation occurred after 10½ months' treatment; after 14 months' treatment patient showed increased dementia, no improvement in physical signs, but negative serological findings the majority of the time for several months. Treatment terminated at death. No autopsy.

SEROLOGICAL RESULTS. CASE 5.

Date of Puncture.	Blood.	Fluid.	Noguchi Glob.	Cells.	Gold Sol.
Feb. 5, '16	Pos.	Pos.	Pos.	16	5555551000
Feb. 16, "	Neg.	"	"	2	555555210
Feb. 26, "	Pos.	"	"	40	5555554310
Mar. 9, "	"	"	"	80	5555521000
Mar. 25, "	"	Neg.	"	20	555555210
Apr. 6, "	"	"	"	0	5555553310
Apr. 15, "	"	"	Bloody.	2	Bloody.
Apr. 25, "	"	Pos.	Pos.	80	5553310000
May 6, "	"	Neg.	Neg.	6	555555100
May 17, "	"	Bloody.	Bloody.	..	Bloody.
May 26, "	"	Neg.	Pos.	..	555531000
June 7, "	"	Pos.	"	..	555542100
June 21, "	"	"	Neg.	..	555555210
July 1, "	"	Neg.	"	..	555553210
July 12, "	"	Bloody.	Bloody.	..	Bloody.
July 22, "	"	Neg.	Neg.	..	555543100
Aug. 1, "	"	"	"	..	4433210000
Aug. 12, "	"	"	Pos.	..	555553210
Aug. 23, "	"	"	"	..	555531000

Date of Puncture.	Blood.	Fluid.	Noguchi Glob.	Cells.	Gold Sol.
Sept. 2, '16	Pos.	Pos.	Neg.	..	5555444211
Sept. 13, "	"	Neg.	"	..	5555554210
Sept. 23, "	"	"	"	..	5555532110
Oct. 4, "	Neg.	"	"	..	5555553210
Oct. 14, "	Pos.	"	"	..	5555553211
Oct. 25, "	Neg.	"	"	..	0010000000
Nov. 3, "	"	"	"	..	0010000000
Nov. 13, "	"	"	"	..	0000000000
Nov. 24, "	"	"	"	2	0000000000
Dec. 4, "	Pos.	"	"	..	0000000000
Dec. 13, "	"	"	"	0	0000000000
Dec. 23, "	"	"	"	0	0000000000
Jan. 3, '17	Neg.	"	"	0	0001000000
Jan. 13, "	Pos.	"	Pos.	0	5555431100
Jan. 23, "	"	"	"	2	0001100000
Feb. 6, "	Neg.	"	Neg.	0	5544210000
Feb. 15, "	"	"	"	1	0001000000
Feb. 26, "	Pos.	"	"	0	0000010000
Mar. 8, "	Neg.	"	"	0	0000000000
Mar. 17, "	"	"	"	0	0000000000
Mar. 27, "	Pos.	"	"	0	0000000000
Apr. 9, " Death.					

CASE 6.—K. M. (No. 8784), female, age 65, married, seamstress, one child, no miscarriages; date of infection unknown, no treatment; duration of symptoms, one and one-half years prior to present treatment, consisting of confusion, memory defect, emotional instability, auditory and visual hallucinations, partial disorientation, and considerable dementia; physical examination showed lack of coordination, exaggerated patellar reflexes, pupils unequal, and having impaired reaction to light, speech defect, tremor of lips, tongue, and hands; original Wassermann positive in both blood and spinal fluid, globulin test positive, 16 cells per c. mm., and gold solution reaction 5555531000; diagnosis, paresis, dementing type. Result: Salivation did not occur; after about nine months' treatment the patient showed profound dementia, with no change in the physical signs, and aside from two negative globulin tests, no change in the serological findings. Treatment terminated at death.

Autopsy showed no pathological conditions which might not be found in untreated cases. The findings were as follows: Chronic pachymeningitis; pial and cortical edema, arachnoid cysts, chronic ependymitis; sclerosis of basilar vessels; cortical atrophy and gliosis; perivascular infiltration and endothelial proliferation of cortical vessels; chronic interstitial hypophysitis.

SEROLOGICAL RESULTS. CASE 6.

Date of Puncture.	Blood.	Fluid.	Noguchi Glob.	Cells.	Gold Sol.
Feb. 5, '16	Pos.	Bloody.	Bloody.	..	Bloody.
Feb. 16, "	"	"	"	..	"
Feb. 26, "	"	Pos.	Pos.	40	5555554310
Mar. 9, "	"	"	"	12	5555555420
Mar. 25, "	"	"	"	12	5555554310
Apr. 6, "	"	"	"	120	5555555310
Apr. 15, "	"	"	"	12	5555555310
Apr. 25, "	"	"	"	0	5554100000
May 6, "	"	"	"	40	5555511000
May 17, "	"	"	"	..	5555555321
May 26, "	"	"	"	..	5555551110
June 7, "	"	"	"	..	5555553210
June 21, "	"	"	"	..	5555553100
July 1, "	"	"	Neg.	..	5555553210
July 12, "	"	"	Pos.	..	5555554100
July 22, "	"	"	Neg.	..	5555555110
Aug. 1, "	"	"	Pos.	..	5555554310
Aug. 12, "	"	"	"	..	5555555431
Aug. 23, "	"	"	"	..	5555553210
Sept. 2, "	"	"	"	..	5555555311
Sept. 13, "	"	"	"	..	5555553210
Sept. 23, "	"	"	"	..	5555552110
Oct. 4, "	"	"	"	..	5555542100
Oct. 14, "	"	"	"	..	5555554211
Oct. 25, "	Death.				

CASE 7.—A. M. (No. 9068), female, age 35, married, housewife, two children, no miscarriages; date of infection unknown, no treatment; duration of symptoms, five years prior to present treatment, consisting of lessened ability to perform her usual tasks, poor judgment in conducting her household, memory defect, irritability, impulsive and destructive tendencies, disorientation, mild euphoria, and emotional instability, with no insight; physical examination showed a fine tremor of hands, lips, and tongue, patellar reflexes exaggerated, more on the right side, left pupil rigid to light, right pupil having a slight reaction, some analgesia to pin pricks, speech defect; original Wassermann on the blood and spinal fluid positive, globulin test positive, and 30 cells per c.mm., gold solution reaction 5555554300; diagnosis, paresis, grandiose type. Result: Salivation occurred after 15 months; after 15 months' treatment the patient shows some mental improvement, but not sufficient to be termed a remission, with no change in the physical signs, but many negative serological findings. Patient still under treatment.

SEROLOGICAL RESULTS. CASE 7.

Date of Puncture.	Blood.	Fluid.	Noguchi Glob.	Cells.	Gold Sol.
Feb. 5, '16	Pos.	Pos.	Pos.	4	5555541000
Feb. 16, "	"	"	"	30	555555320
Feb. 26, "	"	"	"	12	5555554100
Mar. 9, "	Had a convulsion.				
Mar. 25, "	Pos.	Pos.	"	3	5555541000
Apr. 6, "	"	"	"	0	555555211
Apr. 15, "	"	"	"	6	5555531000
Apr. 25, "	"	"	"	16	5555431000
May 6, "	"	"	"	0	5555310000
May 17, "	"	"	"	..	5555521100
May 26, "	"	Neg.	"	..	555555210
June 7, "	"	Pos.	Neg.	..	5554421000
June 21, "	"	"	"	..	555555310
July 1, "	"	"	Pos.	..	555555410
July 12, "	Neg.	"	Neg.	..	5555442000
July 22, "	Pos.	"	Pos.	..	5555554100
Aug. 1, "	"	"	"	..	5554432100
Aug. 12, "	"	"	Neg.	..	555555311
Aug. 23, "	Neg.	"	Pos.	..	555555310
Sept. 2, "	Pos.	"	Neg.	..	5555544210
Sept. 13, "	Neg.	"	Pos.	..	5555544210
Sept. 23, "	"	"	"	..	5555552110
Oct. 4, "	Pos.	"	"	..	5555552110
Oct. 14, "	Neg.	"	"	..	5555443110
Oct. 25, "	Pos.	"	Neg.	..	555555221
Nov. 3, "	Neg.	"	"	..	5555542110
Nov. 13, "	"	"	"	..	5533210000
Nov. 24, "	"	"	Pos.	0	5555544211
Dec. 4, "	Pos.	Neg.	Neg.	..	5554421000
Dec. 13, "	"	Pos.	Pos.	0	5553321100
Dec. 23, "	Neg.	"	"	0	1223210000
Jan. 3, '17	"	"	"	0	5555443110
Jan. 13, "	Pos.	"	"	0	555555310
Jan. 23, "	"	"	Neg.	2	5555432200
Feb. 6, "	Neg.	"	Pos.	0	5555532110
Feb. 15, "	"	"	"	0	5544321000
Feb. 26, "	"	"	"	6	5555553211
Mar. 8, "	"	"	"	0	5554422000
Mar. 17, "	"	"	"	0	5555542111
Mar. 27, "	Pos.	"	"	0	5544421000
May 4, "	Neg.	Neg.	Neg.	4	5555431100

CASE 8.—C. E. R. (No. 9197), female, age 40, married, housewife, three children, no miscarriages; date of infection unknown; no treatment; date of onset of symptoms uncertain, but probably two or three years prior to treatment, consisting of increasing irritability, memory defect, inability to conduct her home, loss of musical skill, which had been more than ordinary, convulsions, followed by periods of confusion of a day or more in duration, incoordination, speech defect, periods of boastful euphoria and emotional instability; physical examination showed lack of coordination for finer movements, a shuffling gait with feet placed widely apart, tremor of tongue, lips, and hands, pupils unequal and having a very limited light reaction, patellar reflexes absent, analgesia to pin pricks, disturbance of temperature sense; original Wassermann on the blood negative, on the fluid positive, globulin test positive, 40 cells per c. mm., and a gold solution reaction of 5555554100; diagnosis, tabo-paresis. Result: Repeated attempts were made for several months to use inunctions, but the patient reacted with such a violent dermatitis that the treatment had to be abandoned each time up to six months ago, when it could be carried on routinely. Salivation occurred in nine weeks; after six months' treatment the patient shows not only no improvement mentally, but a progressing dementia; there has been no change in the physical signs, and with the exception of one negative Noguchi globulin test, no alteration in the serological findings. The negative result in the blood originally has been maintained throughout. Patient is still under treatment.

SEROLOGICAL RESULTS. CASE 8.

Date of Puncture.	Blood.	Fluid.	Noguchi Glob.	Cells.	Gold Sol.
Nov. 3, '16	Neg.	Pos.	Pos.	..	5555543220
Nov. 13, "	"	"	"	..	5555543110
Nov. 24, "	"	"	"	0	5555554210
Dec. 4, "	"	"	Neg.	..	5555533100
Dec. 13, "	"	"	Pos.	2	5555554311
Dec. 23, "	"	"	"	0	5555533211
Jan. 3, '17	"	"	"	0	5554431100
Jan. 13, "	"	"	"	0	5555553210
Jan. 23, "	"	"	"	0	5555555321
Feb. 6, "	"	"	"	0	5555554320
Feb. 15, "	"	"	"	1	5555555321
Feb. 26, "	"	"	"	0	5555555311
Mar. 8, "	"	"	"	0	5555552110
Mar. 17, "	"	"	"	13	5555555311
Mar. 27, "	"	"	"	2	5555542110
May 4, "	"	"	"	0	5555432100

CASE 9.—M. H. (No. 9223), female, age 59, widow, pharmacist, one child, one stillbirth; date of infection unknown; no treatment; onset of symptoms, about two years prior to the present treatment, consisting of inattention to her work, memory defect, lessened business ability, grandiose delusions, mild excitement, loquacity, and denudative and destructive tendencies; she

was committed to a private sanitarium for six months in the year 1915, and was reported to have improved under "mild" anti-syphilitic treatment; physical examination later showed uncertain gait, positive Rombergism, pronounced speech defect, pupils unequal, and having a limited reaction to light, patellar reflexes diminished but equal, and optic atrophy; original Wassermann positive for both blood and fluid, globulin test positive, one cell per c. mm., and a gold solution reaction of 555555200; diagnosis, paresis, grandiose type. Result: Salivation has not occurred; after 15 months' treatment, the patient shows some improvement mentally, but not approximating a remission; physically she is stronger, but has shown no change in the abnormal physical signs, and except for an occasional negative globulin test, no alteration in the serological findings. Patient still under treatment.

SEROLOGICAL RESULTS. CASE 9.

Date of Puncture.	Blood. Pos.	Fluid. Pos.	Noguchi Glob. Pos.	Cells.	Gold Sol.
Feb. 5, '16	"	"	"	80	5555555000
Mar. 25, "	"	"	"	120	5555555100
Apr. 6, "	"	"	"	270	5555555310
Apr. 15, "	"	"	"	0	5555553210
Apr. 25, "	"	"	"	16	5555531000
May 6, "	"	"	"	12	5555555210
May 17, "	"	"	"	..	5555532100
May 26, "	"	"	"	..	5555555421
June 7, "	"	"	Neg.	..	5555555220
June 21, "	"	"	"	..	5555555210
July 1, "	"	"	"	..	5555554321
July 12, "	"	"	Pos.	..	5555554100
July 22, "	"	"	Neg.	..	5555555210
Aug. 1, "	"	"	Pos.	..	5555555410
Aug. 12, "	"	"	"	..	5555553210
Aug. 23, "	"	"	"	..	5555555210
Sept. 2, "	"	"	"	..	5555554210
Sept. 13, "	"	"	"	..	5555544310
Sept. 23, "	"	"	"	..	5555544210
Oct. 4, "	"	"	"	..	5555553210
Oct. 14, "	"	"	Neg.	..	5555553211
Oct. 25, "	"	"	Pos.	..	5555532110
Nov. 3, "	"	"	"	..	5555553110
Nov. 13, "	"	"	Neg.	..	5555543110
Nov. 24, "	"	"	Pos.	1	5555554211
Dec. 4, "	"	"	"	..	5555554221
Dec. 13, "	"	"	Neg.	1	5555542210
Dec. 23, "	"	"	Pos.	0	5555542110
Jan. 3, '17	"	"	"	0	5555555210
Jan. 13, "	"	"	"	0	5555444110
Jan. 23, "	"	"	"	0	5555543110
Feb. 6, "	"	"	"	3	5555543100

Date of Puncture.	Blood.	Fluid.	Noguchi Glob.	Cells.	Gold Sol.
Feb. 15, '17	Pos.	Pos.	Neg.	1	5554210000
Feb. 26, "	"	None taken.	"		
Mar. 8, "	"	Pos.	Pos.	0	555555311
Mar. 17, "	"	"	"	1	555555211
Mar. 27, "	"	"	"	0	5555421100
May 4, "	"	"	"	0	555553210

CASE 10.—J. T. (No. 9241), female, age 45, married, housewife, one child, two stillbirths; date of infection unknown; husband is a cerebro-spinal syphilitic; patient received no treatment; onset of symptoms, about nine months prior to present treatment, consisting of physical weakness, memory defect, and emotional instability; physical examination showed right optic atrophy, Argyle Robertson pupil in left eye, unsteady, shuffling gait, incoordination for finer movements, patellar reflexes diminished, tremor of lips, tongue, and hands, speech defect; original Wassermann positive on both blood and spinal fluid, globulin test positive, 60 cells per c. mm., and a gold solution reaction of 5555541000; diagnosis, tabo-paresis. Result: Salivation did not occur; after 15 months' treatment the patient shows, practically, a remission; there has been no marked change in the physical signs and few changes in the serological findings with the exception of the gold solution reaction. Patient is still under treatment.

SEROLOGICAL RESULTS. CASE 10.

Date of Puncture.	Blood.	Fluid.	Noguchi Glob.	Cells.	Gold Sol.
Mar. 25, '16	Pos.	Pos.	Pos.	3	5555553100
Apr. 6, "	"	"	"	0	5555552100
Apr. 15, "	"	"	"	60	1134210000
Apr. 25, "	"	"	"	0	1223332100
May 6, "	"	"	"	10	1123321000
May 17, "	"	"	"	..	1133310000
May 26, "	"	"	"	..	0133210000
June 7, "	"	"	"	..	1234210000
June 21, "	"	"	"	..	5555553100
July 1, "	"	"	"	..	5555555310
July 12, "	"	"	Neg.	..	5555442100
July 22, "	"	"	Pos.	..	5555553100
Aug. 1, "	"	"	"	..	4443321000
Aug. 12, "	"	"	"	..	5555555420
Aug. 23, "	"	"	"	..	5555553100
Sept. 2, "	"	"	"	..	5555554311
Sept. 13, "	"	"	"	..	5555555211
Sept. 23, "	"	"	"	..	5555555310
Oct. 4, "	"	"	"	..	5555554210
Oct. 14, "	"	"	Neg.	..	5555543210
Oct. 25, "	"	"	"	..	5555521100
Nov. 3, "	"	"	Pos.	..	5555555221

Date of Puncture.	Blood.	Fluid.	Noguchi Glob.	Cells.	Gold Sol.
Nov. 13, '16	Pos.	Pos.	Neg.	..	4432210000
Nov. 24, "	"	"	Pos.	0	5555544221
Dec. 4, "	"	"	"	..	0001000000
Dec. 13, "	"	"	"	I	3332100000
Dec. 23, "	"	"	"	0	1112441000
Jan. 3, '17	"	Neg.	Neg.	0	1122110000
Jan. 13, "	"	Pos.	Pos.	0	555553210
Jan. 23, "	"	"	Neg.	0	5555532110
Feb. 6, "	"	"	Pos.	I	5555543110
Feb. 15, "	"	"	"	0	5555553110
Feb. 26, "	"	"	"	0	5555554211
Mar. 8, "	"	"	"	0	5555432000
Mar. 17, "	"	"	"	0	5555542110
Mar. 27, "	"	"	Neg.	I	4433210000
May 4, "	"	Neg.	"	0	5544311000

CASE II.—C. S. (No. 9440), female, age 37, married, housewife, no children, one miscarriage; date of infection unknown; no treatment; onset of symptoms, one and one-half years prior to present treatment, consisting of lessened efficiency in the management of her household, carelessness of personal appearance, memory defect, difficulty in articulation, syncopal attack, gait staggering and uncertain; physical examination showed a positive Romberg, incoordination of finer movements, Argyle Robertson pupils, absent patellar reflexes, analgesia of the lower extremities; original Wassermann reaction positive in both blood and spinal fluid, globulin test positive, 20 cells per c. mm., gold solution reaction 5510000000; diagnosis, tabo-paresis. Result: Salivation did not occur; after four months' treatment the patient showed some improvement, principally in her ward reaction, with no change in the physical signs, and, except for two negative globulin tests and a more typically paretic gold solution reaction, no alteration in the serological findings. Treatment terminated by discharge from the hospital.

SEROLOGICAL RESULTS. CASE II.

Date of Puncture.	Blood.	Fluid.	Noguchi Glob.	Cells.	Gold Sol.
Aug. 12, '16	Pos.	Pos.	Pos.	20	5510000000
Aug. 23, "	"	"	"	..	5555552100
Sept. 2, "	"	"	"	..	5555555211
Sept. 13, "	"	"	"	..	5555555210
Sept. 23, "	"	"	Neg.	..	5555555310
Oct. 4, "	"	"	"	..	5555554210
Oct. 14, "	"	"	Pos.	..	5555554221
Oct. 25, "	"	"	"	..	5555431100
Nov. 3, "	"	"	"	..	55555543110
Nov. 13, "	"	"	"	..	5555555311
Nov. 24, "	"	"	"	20	5555555321
Dec. 1, " Discharged.					

CASE 12.—A. O. (No. 9484), female, age 52, married, housewife, five children, no miscarriages; date of infection unknown; no treatment; onset of symptoms, about three years prior to the present treatment, consisting of a feeling of physical incapacity, neglect of work, forgetfulness, poor judgment in the expenditure of money, and emotional instability; no convulsions; physical examination showed patellar reflexes exaggerated but equal, pupils equal and regular but having a limited light reaction, speech defect, tremor of lips and tongue; original Wassermann on blood and fluid positive, globulin test positive, 40 cells per c. mm., gold solution reaction 5555543110; diagnosis, paresis, dementing type. Result: Salivation occurred in two and one-half months; after seven months' treatment the patient shows very little improvement mentally, no change in the physical signs, and aside from some negative globulin tests, no change in the serological findings. Patient still under treatment.

SEROLOGICAL RESULTS. CASE 12.

Date of Puncture.	Blood.	Fluid	Noguchi Glob.	Cells.	Gold Sol.
Oct. 25, '16	Pos.	Pos.	Pos.	40	5555542111
Nov. 3, "	"	Bloody.	Bloody.	..	Bloody.
Nov. 13, "	"	Pos.	Pos.	..	5555552110
Nov. 24, "	"	"	"	..	5555555221
Dec. 4, "	"	"	Neg.	..	5555544211
Dec. 13, "	"	Bloody.	Bloody.	..	Bloody.
Dec. 23, "	"	Pos.	Pos.	0	5555555322
Jan. 3, '17	"	"	Neg.	0	5555533210
Jan. 13, "	"	"	Pos.	2	5555543110
Jan. 23, "	"	"	"	2	5555552110
Feb. 6, "	"	"	"	0	5555555320
Feb. 15, "	"	"	Neg.	2	5555553210
Feb. 26, "	"	"	"	0	5555542110
Mar. 8, "	"	None taken.			
Mar. 17, "	"	Pos.	Neg.	0	5555443110
Mar. 27, "	"	"	Pos.	5	5555553110
May 4, "	"	"	Neg.	0	5555443110

CASE 13.—C. F. J. (No. 9509), female, age 33, married, housewife, no children, one miscarriage; date of infection unknown; no treatment; onset of symptoms, about two years prior to the present treatment, consisting of vague, depressive ideas, lessening of ability in performing her work, emotional instability, progressive irritability, periods of excitement, vague ideas of persecution and infidelity, loss of finer sensibilities, partial disorientation, and a tendency to lose her way in familiar places; physical examination showed edema of the optic nerves, patellar reflexes exaggerated but equal, clonus of the left ankle, some analgesia to pin pricks, general slowing of sensation, pupils widely dilated, equal, slightly irregular, but having a

prompt and wide reaction to light; original Wassermann positive in both blood and fluid, globulin test positive, 30 cells per c. mm., gold solution reaction 5555554211; diagnosis, paresis, depressed type. Result: Salivation occurred in 11 weeks; after seven months' treatment the patient shows a remission of mental symptoms, with a fairly competent memory and good insight; aside from possibly slightly less active pupils and disappearance of the ankle clonus, there has been practically no change in the physical signs; and except for an occasional negative Noguchi globulin test, no change in the serological findings. Patient still under treatment.

SEROLOGICAL RESULTS. CASE 13.

Date of Puncture.	Blood.	Fluid.	Noguchi Glob.	Cells.	Gold Sol.
Nov. 3, '16	Pos.	Bloody.	Bloody.	..	Bloody.
Nov. 13, "	"	"	"	..	"
Nov. 24, "	"	Pos.	Pos.	0	5555544210
Dec. 4, "	"	"	"	..	5555553221
Dec. 13, "	"	"	Neg.	1	5555553111
Dec. 23, "	"	"	Pos.	0	5555444200
Jan. 3, '17	"	"	"	0	5555555220
Jan. 13, "	"	"	"	3	5555553221
Jan. 23, "	"	"	"	0	5555552210
Feb. 6, "	"	"	Neg.	12	5555543221
Feb. 15, "	"	"	Pos.	0	5555421100
Feb. 26, "	"	"	"	1	5555442100
Mar. 8, "	"	"	"	0	5555442100
Mar. 17, "	"	"	"	0	5555554211
Mar. 27, "	"	"	"	0	5555543210
May 4, "	"	"	Neg.	1	5555432210

CASE 14.—N. B. (No. 9515), female, age 49, married, housewife, no children, no miscarriages; date of infection unknown; no treatment; onset of the prodromal symptoms is said to have been about six years prior to this treatment, consisting of irritability and lessened efficiency; the marked mental symptoms began about two years prior to this treatment and consisted of a marked memory defect, a tendency to lose her way in familiar places, defects in articulation and handwriting, and finally an attempt at suicide; physical examination showed a weak, uncertain gait, tremor of tongue and lips, patellar reflexes diminished, pupils unequal, irregular, and having a very limited light reaction; original Wassermann positive on both blood and spinal fluid, globulin test positive, 70 cells per c. mm., and a gold solution reaction of 5555555211. Result: Salivation did not occur; after four months' treatment the patient showed a far-advanced dementia, no change in the physical signs, and aside from one negative Noguchi globulin test, no alteration in the serological findings. Treatment terminated at death. No autopsy.

SEROLOGICAL RESULTS. CASE 14.

Date of Puncture.	Blood.	Fluid.	Noguchi Glob.	Cells.	Gold Sol.
Oct. 25, '16	Pos.	Pos.	Pos.	70	5555555211
Nov. 3, "	"	"	"	..	55555552210
Nov. 13, "	"	"	"	..	5555542210
Nov. 24, "	"	"	"	0	5555553210
Dec. 4, "	"	"	Neg.	..	5555554311
Dec. 13, "	"	"	Pos.	2	5555555210
Dec. 23, "	"	"	"	0	5555553211
Jan. 3, '17	"	"	"	1	5555533210
Jan. 13, "	"	"	"	0	5555554210
Jan. 23, "	"	"	"	0	5555442100
Feb. 6, "	"	"	Neg.	0	5555542210
Feb. 15, "	"	"	Pos.	2	5555542210
Feb. 18, "	Death.				

ANALYSIS OF SEROLOGICAL RESULTS.

Case No.	Blood.		Fluid.		Globulin.		Cells.			Gold Sol.		
	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Max.	Min.	Aver.	Par.	Syph.	Neg.
1	5	12	14	2	11	5	92	0	8	7	3	8
2	8	5	10	2	9	2	120	0	30	11	0	0
3	16	5	21	0	18	3	120	0	21	10	1	1
4	39	2	37	1	29	8	90	0	14	37	0	0
5	29	11	8	31	13	24	80	0	21	23	0	14
6	24	0	22	0	20	2	120	0	36	22	0	0
7	24	16	37	3	29	11	30	0	6	39	1	0
8	0	17	17	0	16	1	13	0	1	17	0	0
9	38	0	37	0	30	7	270	0	28	37	0	0
10	37	0	35	2	29	8	60	0	4	27	3	7
11	11	0	11	0	9	2	20	20	20	11	0	0
12	17	0	14	0	8	6	40	0	5	14	0	0
13	16	0	14	0	11	3	12	0	1	14	0	0
14	12	0	12	0	10	2	70	0	9	9	0	0

Recently Akatsu and Noguchi* have shown that the *Treponema pallidum* develops a resistance to mercury equal to 35 to 70 times the original fatal amount. It is possible that in this series of cases the *Treponemata* became immune to mercury, and this might explain the negative results of the treatment.

It is interesting to note the enormous amounts of mercury which these patients tolerated without having suffered from salivation. Of the 14 cases only eight showed salivation; the time required to reach this condition varied from a minimum of three weeks in one case to a maximum of 15 months in another. Of the five cases

who died while under treatment, none showed any evidence that the medication was a contributing factor in the death.

It is a generally accepted theory that Wassermann reactions made while the patients are receiving active mercurial treatment are of little value because the mercury absorbed causes a positive serum to react negatively. In this series we obtained positive Wassermanns from cases before and during salivation, and, on the other hand, we obtained negative results from cases which were never salivated. One patient who was receiving daily inunctions was transferred to another ward and by accident the treatment sheet was not transferred with her. Treatment was consequently omitted for a period of two weeks. For 10 weeks prior to this time most of the reactions were negative, but following the omission of the treatment the next examination showed a positive globulin test and a return of the paretic curve with the fluid. When treatment was resumed the reactions again became negative with the exception of an occasional positive Wassermann in the blood.

Several examinations on the grouped spinal fluids were made in order to determine the presence of mercury, but it was found only in the last one, at about the end of the period of observation. Only a trace of mercury was found.

In Gilpin and Earley's report, previously referred to, two cases, one of paresis and one of tabo-paresis, were treated. One case never showed a positive spinal fluid, and therefore might present some doubt as to the diagnosis. This case was treated for about 11 months; of the seven observations made on the blood, the first four were positive and the last three negative. The globulin tests were positive in each instance. The patient is reported to have improved sufficiently to hold a position requiring mental exactness, but no change was shown in his pupillary reaction. The second case, which received additional salvarsan treatment previous to the use of the inunctions of mercury and drainage of the spinal canal, was treated for a period of about seven months. The report of the laboratory examinations show him to have had at first two strongly positive bloods, and at the latter part of the period of observation, one negative followed by a weakly positive blood. The globulin test was positive in all seven instances, as was the spinal fluid. Mentally he was reported to have been capable of performing his work, but needing further treatment.

Since the investigation under discussion was begun, Pilsbury^{*} reported the results of treatment of six cases of paresis by this same method. The treatment was not continued for more than four months in any of his cases, which is rather too short a time for satisfactory investigation.

Dana,^{*} before the days of accurate diagnostic methods, advanced the theory that if a patient is to be benefited the diagnosis must be made early, before extensive destruction of the brain cells, with its accompanying dementia, has taken place. Others since him have agreed with this opinion, and the present investigation gives further evidence in proof of the proposition. The writer fully appreciates the fact that some of the cases in this report were too far advanced to permit of any optimistic outlook for them, but the negative serological results obtained in even these strengthens the belief that marked benefit may be derived by this form of treatment if the disease is diagnosed early and intensively treated.

SUMMARY.

Fourteen paretics, who had been showing symptoms from nine months to several years received daily inunctions of mercurial ointment 50 per cent. Every tenth day a lumbar puncture was made and from 20 c. c. to 40 c. c. of fluid withdrawn, the amount depending on the pressure and the rapidity of the flow. A Wassermann reaction was done, using the blood serum; a globulin test, cell count, Lange's colloidal gold test, Wassermann reaction and a chemical test to determine the presence of mercury were done, using the fluid. In seven, or 50 per cent of the cases the blood Wassermann became negative and remained so for varying periods of time; one case had a negative blood at the time of admission and it remained so throughout the period of observation. In 6, or 43 per cent of the cases, the spinal fluid became negative and remained so for varying periods of time. In no instance did the blood or spinal fluid become negative and remain so. All cases had negative globulin tests at one or more examinations, but, with the exception of one case, more positives than negatives were obtained. The cell count showed an irregular decrease in all instances. In 4, or 28 per cent of the cases, the colloidal gold became negative, that is, was neither paretic nor luetic in type, but all showed "paretic curves" at some later examination. After

15 months' treatment a trace of mercury was found in 500 c. c. of grouped spinal fluids. No mercury was found on previous examinations.

One case showed a good remission mentally, but all the serological findings remained strongly positive. Another case did not improve quite as much, but approached a state termed a remission, and has shown some negative serological findings. The remaining 12 cases showed no greater mental or physical changes than would be found in a similar group of untreated cases. The lack of correlation between the serological findings and mental conditions leaves little ground on which to base definite conclusions as to the value of the treatment.

I wish here to express my appreciation of the assistance rendered by Dr. Paul G. Weston in performing the pathological, serological, and chemical examinations included in this study, and also to my colleagues who assisted in obtaining the specimens.

REFERENCES.

1. J. A. M. A., 1916, LXVI, p. 260.
2. Jour. Med. Research, 1914, XXX, p. 377.
3. J. A. M. A., 1914, LXII, p. 532.
4. Jour. Exper. Med., 1917, XXV, p. 349.
5. J. A. M. A., 1917, LXVIII, p. 267.
6. Proceedings N. Y. Psychiatric Soc., 1904.

DISCUSSION.

DR. C. B. BURR.—Mr. President, this investigation was evidently undertaken and carried out seriously, earnestly, and with great conscientiousness. All who have heard his paper must feel indebted to the Doctor for these investigations. We listened to what he had to say, hopefully perhaps, some of us, but his conclusions were not so very different from what was anticipated from our own experience. Nevertheless, I am exceedingly glad the paper was given. There is a great deal of self-cheating in therapeutics and the truth should be plainly and conscientiously revealed. Unfavorable results thus reported are of great value in keeping our heads near the level. Again, I want to thank the Doctor for his paper.

DR. WOODSON.—Mr. President, I am a doubting Thomas as regards the benefits to be derived from the treatment of paresis. As we have all seen, some cases have more resisting capacity than others, so to speak, and they often make a marked improvement, but I think the Doctor is to be thanked for the work he has done, and as the time fixed by the Chair, three minutes, is not sufficient to discuss positive results, I move that the writer be requested to continue his investigations and report at a subsequent meeting.

THE INFLUENCE OF WARS ON THE PSYCHOLOGY OF THE TIMES.*

By CHARLES K. MILLS, M. D., LL. D.,

*Emeritus Professor of Neurology in the University of Pennsylvania;
Neurologist to the Philadelphia General Hospital.*

AXIOM OF THUCYDIDES THAT WAR EDUCATES THROUGH VIOLENCE.

Although not entirely applicable as a text for all that follows, I might introduce my subject by a citation from a recent essay in *The Fortnightly Review* for March, 1917, by Edmund Gosse on "Lord Cromer as a Man of Letters." "In connection with the axiom of Thucydides that war educates through violence, he (Lord Cromer) wrote, 'The Germans, who, in spite of their culture, preserve a strain of barbarism in their characters, are the modern representatives of this view. There is just this amount of truth in it—that at the cost of undue and appalling sacrifices, war brings out certain fine qualities in individuals and sometimes in nations.'"

THE SPIRIT OF THE PEOPLE IN PEACE AND IN WAR.

In the piping times of peace, nations sometimes become not only unheroic but sordid. They worship Mammon, pursue pleasure, become snobbish and invest themselves with imaginary virtues. A tendency to degeneration, which fortunately is usually only temporary, is one of the results. War comes with its excitements, its hopes and its fears. If it is a war in which the nation's life is at stake it appeals to the often latent, but always existent, patriotism and brings out the heroic qualities of the people. Gosse's comment on the words of Lord Cromer is that this may surely be taken as a direct prophecy of the magnificent efforts of France in the present conflict.

For many years before the outbreak of this war it was by no means a rare observation by unthinking commentators that France was becoming a decadent nation. At an address by a distinguished

* Read at the seventy-third annual meeting of the American Medico-Psychological Association, New York, May 29-June 1, 1917.

educator at one of the colleges near Philadelphia the speaker voiced this too widely held opinion. A French member of the faculty who was one of a large audience rose in his seat and remarking in a dignified but emphatic way, "This is not true," left the hall. No one will I think deny the truth of this indignant comment in the light of what France has done in the last three years.

PSYCHOLOGICAL PREDISPONENTS AND EXCITANTS.

To grasp the effects of war and revolution, which usually means war, on the psychology of the times, one must look backward to discern the causes which have activated the people in periods antedating war and revolution. It is only in this way that we can really obtain clear ideas as to the effects of war.

One objection which may be made to this paper as a contribution to the meeting of a medical association is that it is not psychiatric, but psychological. This objection, however, does not seem to have much strength. The psychology which leads to war and which is excited or intensified by war is in truth often a morbid psychology and if not morbid in the usual sense of the psychiatrist, it is one whose study may be illuminating for him.

Our subject can be perhaps best discussed with advantage under those old fashioned medical headings of "predisposing and exciting causes." The predisponents to war in a proper sense often in large part are the predisponents of the psychology which develops in a time of war. One war often predestines succeeding conflicts.

Gustave Le Bon has emphasized the importance of affective and mystic agencies in the psychology of war and especially of revolution, believing that such causes are far more influential than the intellectual processes. He combats the view that revolutions which usually mean periods of violence as well as of change, are the outcome of rational activation. Voltaire, Rousseau, the encyclopedists and others, who were educating the people in new ways of thinking about governments and society, had according to him much less to do with precipitating revolutions and the wars which accompany or follow them than affective or mystic causes. There is much truth in this view of Le Bon, but he probably gives too little weight to the progressive inculcation of new ideas.

THE DETERMINING PSYCHOLOGY OF SUCCESSIVE WARS.

Great wars, and some of minor importance, can usually be traced to the influence exerted by previous wars on the material prosperity and the psychology of the participants. This of course is a fact more or less generally recognized, but the psychological effect is not always properly apportioned. One country may be devastated and overwhelmed, while the other emerges enlarged and enriched, but it is neither the material loss on the one hand, nor the gain on the other which plays the most important rôle in the initiation of new conflicts. War leaves the people engaged in it a psychological inheritance which is potent for future peace or war. This psychological inheritance is largely affective and therefore illustrative of the views of Le Bon. The emotions and sentiments of the people at one period of conflict become more or less crystallized in their psychology and later under the influence of a variety of solvents are set free, again to become active.

HISTORICAL ILLUSTRATIONS OF TRANSMITTED PSYCHOLOGY.

Going back to the times of the English Commonwealth (1649-1653), the spirit which was born of the struggle of the people against the tyranny of the king not only persisted in Great Britain, but was carried after the Restoration across the ocean—then a far wider span than at present. This spirit grew apace in the land, distinctly removed from the immediate control of those who would have checked its progress. It had its next exposition on the American continent in the French and Indian War (1756-1763) which, although in large part conducted on both sides by the military forces of two monarchies, was maintained and carried forward by the spirit of democracy which had its birth in the days of the Commonwealth. This war was in fact the struggle of a people reaching out for greater liberty and in so doing, striking at the dominant autocracy of Europe—that of France. The same spirit was handed on to the American Revolution, and somewhat more remotely but none the less certainly, to the great French Revolution.

THE PSYCHOLOGY OF THE NAPOLEONIC PERIOD.

No page of history is more fascinating than that which deals with the Napoleonic era. When the great revolution had its first culmination in the "whiff of grape-shot," which rendered futile the last defiant effort of Robespierre, France through the turmoil and terror of the revolution had reached a new psychology, one which permeated its people with a desire for a strong hand at the helm. It was this impulse and desire born of strife and suffering which brought the psychological moment making for the advent of a Napoleon.

Who that has followed the story of the illustrious Corsican has not appreciated the determining importance of the psychology of its changing episodes? From his two great Italian campaigns; from the 18th Brumaire to the field of Jena; from Jena to the Russian Débauché; from Berresina to Leipzig; from Leipzig to Elba, and from Elba to Waterloo and St. Helena, it was the changing psychology of France and her antagonists which created and continued the long conflict in which villany and valor played such conspicuous rôles.

Out of the French Revolution and the Napoleonic period was developed the psychology which in part led to the recent Russian Revolution and the Prussian wars against Denmark, Austria, and France; which resulted in the creation of imperial Germany and assured new wars for its preservation and expansion.

RUSSIAN PSYCHOLOGY AND THE RUSSIAN REVOLUTION.

Since the Russian upheaval in March, 1916, many have expressed the opinion that the revolution was the immediate consequence of the war. It was assumed in accordance with the axiom of Thucydides that the war had transformed a quiet and unthinking people into a nation of revolutionaries. Nothing could be further from the truth. To those who have brought about the change in the political policy of Russia the war simply was an opportunity to make use of forces already prepared. If the war had not come in 1914, the revolution in Russia could not have been long postponed. Realizing that the attack of Germany, if successful, threatened to destroy for a generation at least the hopes of those who were longing to place Russia in the list of the world's

democracies, the people sprang to arms, not so much in defence of their dynasty, as of their aspirations.

The revolutionary propaganda in Russia is not of recent birth. Its dawn might easily be traced back several centuries, but it had its first great stimulus, as I have intimated, in the Napoleonic era. The remarkable Russian defence which brought about the French débacle in 1812, not only saved Russia from subjugation, but revealed to her people their own strength. If they could strike so successfully at a foreign foe, why might they not some day strike with equal success at the tyranny which was throttling them at home? This ferment worked steadily and slowly for democracy, but the greatest impetus to the revolution came with the abolition of serfdom by Alexander II in 1861. The revolutionary program has been developing by slow but sure steps during the last 50 years.

"Marshalled and concentrated before hostilities broke out," says Dr. E. J. Dillon, "the revolutionary forces were even then deemed potent enough to uproot the social and political system, lock, stock, and barrel, and the signal for releasing them was about to be given when the Kaiser's antics drew them off to the field of battle."

To revert to my homely medical method of presentation, the predisposing psychology of both the revolution and the war had been evolving in Russia through many decades, and the war with its torments and terrors, its hopes and its fears, its triumphs and defeats, simply brought to a head the long fermenting psychology. The "education through violence" of Thucydides precipitated the revolution in which with little bloodshed one hundred and seventy millions of people overthrew in a day a dynasty supposed to be invincible.

Will the revolution triumph or will it result in a state of chaos which will bring about a successful reaction? The psychology which made it possible represented a long developing condition which cannot end in defeat. Many fear that the outcome of the revolution will be a separate peace which will tend to the undoing of both Russia and her allies, but the forces at work cannot be turned to the benefit of a dynasty more antagonistic to liberty than that of the Romanoffs. A psychology has been created which can only be satisfied by the success of democracy.

THE PSYCHOLOGY OF GERMANY.

Recently drawn into the great war which Germany and her allies are waging against the civilized world, it is difficult for an American to approach in an entirely unprejudiced spirit a discussion necessarily involving some consideration of the merits and defects of German character. Nevertheless, I think that this can be done. Like many of my fellow countrymen I have long held in admiration the brilliant scholarship and record in literature and science of Germany. German idealism at one time bade fair to lead the world. Even amid the heat and hatred inspired by a too vivid knowledge of the events of a war, the most far-reaching and frightful the world has ever known—a war for whose incitement and initiation many of us hold Germany responsible—we cannot lose sight of the great Germany of the past, the Germany of Lessing, Goethe, Schiller, Heine, of Humboldt and Helmholtz, of Beethoven and Wagner, of Virchow, Hitzig, and Erlich. However this war may terminate, the fate of Germany will not be that of Carthage.

The Thirty Years' War, the Seven Years' War, and the Napoleonic wars exerted upon Germany, as upon the rest of the world, an influence largely for the good of that nation. The present German spirit nevertheless has its main roots and development in Germany's conflict with the Danes in 1864; with Austria, her present ally, in 1866; and with France in 1870-71. These wars, potent in their influence on German character, were not in themselves great struggles for mastery. In this respect they did not rank with those of Frederick the Great, of Napoleon, or our own Civil War. The ease and completeness with which Germany overwhelmed her weak, though valiant, antagonists bred a spirit which has tended to her undoing. From the time of the Franco-Prussian War down to the beginning of the present colossal conflict the German mind has ingested and absorbed a pabulum which could not have any other outcome than the development of a self-confidence approaching self-idolatry. So it happened when Germany declared war on Russia and France and her legions swarmed through Belgium, they marched exultant in what to them was the sure hope of speedy victory. Throughout the first half of the war and to a considerable extent down to the present time this spirit has known no taming.

As the flood-tide of German success begins to ebb we see a new psychological spirit, a new mental attitude. Through the nearly barred door of the most stringent censorship the world has ever known we begin to hear the story of this change. One of its most significant evidences is the recent announcement of Maxmillan Harden who tells the German people that after all the enemies of Germany are unconquered and probably unconquerable. Other evidences are to be seen in the Socialist protests in the Reichstag. This is the sort of psychological change which sooner or later is developed in a nation which meets with positive or relative defeat. The contagion of the Russian revolution may also soon play its highly important psychological rôle.

THE PSYCHOLOGY OF ENGLAND.

Quite as interesting an object of study as the German mind is the mental attitude of England. England even more than Germany has a noble literature, a splendid record in science, and a history of empire building unsurpassed in previous imperial records, different and unique when compared with the empire building of Rome and Spain.

England, unlike Germany, did not with swift rapid strides reach her present high place. The British empire, not all made by conquest, but by gradual expansion through conflict, exploration and peaceful accretion, has become the greatest of modern empires. Increase of power has gone hand in hand with the accumulation of wealth.

The success of England, although more gradual than that of Germany and based on more far-reaching causes, has had in it some seeds of evil. Protected by the conglomerate character of the nation, by the more versatile spirit of its people, and by its inheritance of constitutional freedom, England had not fallen into the slough of a fixed and narrow idea like militarism, although memories of Trafalgar and Waterloo had never ceased to influence the British mind. Too much prosperity and too much power however had caused her to lose sight of the high ideals often emphasized in episodes of her history. She had grown self-complacent rather than self-idolatrous. Absorbed by commercial enterprise and pursuit of peaceful pleasures at home and abroad she closed her eyes to the dangers which were threatening and sank

into a cynical and unwholesome disregard of the most elementary principles of national defence. She failed to see her own weakness.

In this way through years of peace, punctuated by small successful wars a psychology was developed among her people which left her in danger of destruction by some more self-centered and aggressive power.

Many brochures and books have been written during the progress of the present war. Some of these are interesting for the light which they throw on the details of the conflict; some for their insight into the psychology of belligerents and neutrals. Books of the latter class are comparatively few and not of great value, but in Wells's "Mr. Britling Sees It Through," we have at least a glimpse of the muddled and puzzled mind of the average Briton when the great storm broke on the world and aroused to a consciousness that he could no longer live secure and unchallenged with his household gods and his parish ideas.

The war came to the Briton with a message almost exactly the opposite of that brought to the German. As I have already said, to the latter it simply intensified a spirit which had been growing within him for more than half a century, a spirit whose vices were many, but whose greatest virtue was its singleness of purpose. To the Briton the war came as an awakening; nor was he easily aroused. The terrible experiences of the war have bred in him a better psychology.

THE PSYCHOLOGY OF AMERICA.

The psychology of America during the present war is of equal interest with that of Germany and England, although its cause and its continuation are more like that of the latter. Since the close of the Civil War, with the exception of the comparatively unimportant wars with Spain and in the Philippines, America has been at peace. In material prosperity she has advanced by bounds, but with this prosperity has not come elevation of spirit, but rather the opposite. She has become a nation to which might almost be applied the lines of Goldsmith regarding Holland:

"Ill fares the land, to hastening ills the prey—
Where wealth accumulates and men decay."

Perhaps it is not quite as bad as this, nevertheless the picture is not altogether without similitude. Literature, art and science,

except as regards the application of the last to the development of wealth, have been largely side-tracked in the quest of the almighty dollar. High thinking has taken a back seat and has been supplanted by high finance and corrupt politics. To those who saw deeply into the problems of the present conflict it was evident from the first that this nation must sooner or later become a party to the struggle, and yet our psychology was controlled by a dominant idea that we must keep out of the war lest our pockets and our comfort be affected. The impulse to righteousness and the love of adventure were submerged. America's attitude was partly one of indifference and partly one engendered by a feeling of security. At last, however, the nation has found herself.

A FEDERATION FOR PEACE.

One of the questions most frequently asked to-day is, What will be the results on human happiness and prosperity of the present great war? Some hold it will work for good; some believe that the immediate and eventual evil will overbalance the good. We are not in this connection concerned with a discussion of the material evils or the material good present or to come. We ask ourselves rather what will be the psychological effects of the war upon nations and upon international relations. One view increasingly held is that out of the terrible turmoil will come an international federation for peace. Those who hold it are not always clear as to the manner in which this will come. I believe the idea, at least as it has mostly been expressed, is not likely to be realized. Nations will not unite in a federation for peace, unless each of the contracting parties is strong enough to defend its rights and its position in case of war. Lack of preparedness, so far as some of the belligerents are concerned, has been one of the sad features of the gigantic struggle and this in its turn has been largely due to the deluding psychology of some of the participants. The smaller states especially, and among the greater nations England, were sadly unprepared for the conflict. America, at last taking the stand which has all along been inevitable, finds herself also unprepared and this largely because of the strange psychology which kept the nation from a realization of the inevitableness of its entry into the strife.

into a cynical and unwholesome disregard of the most elementary principles of national defence. She failed to see her own weakness.

In this way through years of peace, punctuated by small successful wars a psychology was developed among her people which left her in danger of destruction by some more self-centered and aggressive power.

Many brochures and books have been written during the progress of the present war. Some of these are interesting for the light which they throw on the details of the conflict; some for their insight into the psychology of belligerents and neutrals. Books of the latter class are comparatively few and not of great value, but in Wells's "Mr. Britling Sees It Through," we have at least a glimpse of the muddled and puzzled mind of the average Briton when the great storm broke on the world and aroused to a consciousness that he could no longer live secure and unchallenged with his household gods and his parish ideas.

The war came to the Briton with a message almost exactly the opposite of that brought to the German. As I have already said, to the latter it simply intensified a spirit which had been growing within him for more than half a century, a spirit whose vices were many, but whose greatest virtue was its singleness of purpose. To the Briton the war came as an awakening; nor was he easily aroused. The terrible experiences of the war have bred in him a better psychology.

THE PSYCHOLOGY OF AMERICA.

The psychology of America during the present war is of equal interest with that of Germany and England, although its cause and its continuation are more like that of the latter. Since the close of the Civil War, with the exception of the comparatively unimportant wars with Spain and in the Philippines, America has been at peace. In material prosperity she has advanced by bounds, but with this prosperity has not come elevation of spirit, but rather the opposite. She has become a nation to which might almost be applied the lines of Goldsmith regarding Holland:

"Ill fares the land, to hastening ills the prey—
Where wealth accumulates and men decay."

Perhaps it is not quite as bad as this, nevertheless the picture is not altogether without similitude. Literature, art and science,

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One of the most beneficent results of the present great war will be the intensification of a more or less universal feeling for the sacredness of national rights. A federation for peace would have to be based upon the acquiescence of all parties to such a scheme and this in its turn would depend upon the development of a self-confident national spirit in every nation concerned. Our own country is as strong as the states which compose it are strong. A great university has strength in accordance with the strength of its more or less autonomous constituents. This war will produce an international psychology based upon national ideals. No nation has ever been completely crushed, unless the forces working against it have been such as to practically wipe it from the face of the earth, as illustrated in the story of Rome and Carthage.

Out of the present war every nation engaged will come retaining its nationality. Even the tottering empire of Turkey will remain, although in all probability much shorn, especially of its European territory. What we may be pleased to call new nations, will arise, but these in reality will be simply the revivals of nations which have never lost the national spirit—nations, for instance, like Poland and possibly Finland.

THE RECEIVING UNIT OF THE STATE HOSPITAL AT HOWARD, RHODE ISLAND.*

By ARTHUR H. HARRINGTON, M. D.

The receiving of a newly committed patient into a large public hospital for the mentally sick is a procedure which should receive a discriminating and orderly attention. This procedure should have certain definite objects in view. Among the aims to be striven for during the earliest hours following the entrance of the patient should be the orienting of the patient, as far as the mental state allows, towards new and strange surroundings; the endeavoring, as far as the susceptibilities of the patient permit, to direct the reactions arising from changed circumstances into channels leading to a rational view of the situation; the determining, at the earliest possible moment, the immediate condition and needs of the patient; and so managing all these acts as to give the greatest degree of protection to the patient and to the hospital as well, and satisfaction to the friends of the patient.

The place, the manner of reception, and the technique followed during the first hours of a patient's residence should be calculated to produce a favorable impression upon the patient, if possible; these should all be of such character as to keep the suggestion before the patient that he is in fact a patient in a hospital, where he may, if able, comprehend that hospital methods are being carried out for his own good.

The practice relating to the first attentions given to the newly arrived patient from the moment he enters the hospital doors must necessarily vary in detail in different hospitals, according to various circumstances. A factor which may produce variations in these practices may be attributed to the diversity in hospitals as relates to the plan and the general scheme of the buildings. For instance, the block plan, so called, of hospitals for the insane so much in vogue at one time presents some limitations when we try to organize in a hospital so planned a distinct receiving service. The cottage plan of hospital buildings offers better means for the organization of a receiving service which shall have a certain degree of separation from the general service of the whole institu-

* Read at the seventy-third annual meeting of the American Medico-Psychological Association, New York, May 29-June 1, 1917.

tion. As a development of the cottage plan of buildings around an administrative center, we have instances of provisions for convalescents, epileptics and tubercular cases in buildings or units by themselves grouped around the administrative center.

There seems now to be a movement, not so entirely new, but apparently growing in favor, for the establishing of what is called, from the service to which it is put, the "reception hospital," by which is understood a building more or less separated from and independent in its organization of the main hospital plant for the reception of the newly committed cases. I say more or less separated, for this differentiation of the reception hospital from the main hospital plant, physically and from the standpoint of administration and organization, may vary widely in different institutions.

My reasons for responding to an invitation to present a paper at this meeting is because we are beginning to hear the reception hospital discussed as a feature of hospital planning, and because I believe that we have at the State Hospital for Mental Diseases at Howard, R. I., as complete an example as can be found of a building for reception purposes, embodying the features of a service devoted solely to the reception and treatment of recently committed cases of mental disease, a department of the main hospital, located upon the grounds of the main hospital, but conducted as far as conditions will permit as an independent unit.

In describing this receiving unit I will first speak of the building itself.

The building occupies a commanding position upon rising ground and has a southerly exposure. It is separated from the grounds of the main hospital by an avenue. The long dimension of the building, east and west, is 451 feet. The structure contains a central section, on the east of which extends the wards for women and on the west those for men. At the center of the central section, on the south front, is located the main entrance, having a porch and driveway entrance protected by a porte-cochère.

The first floor of the central section contains reception and admission room and necessary offices for the physicians of the receiving service and for stenographers. On the second floor over these rooms are the living quarters for the physicians of the receiving service. In connection with these quarters there is a

dining-room where the physicians have their meals. The third floor contains rooms for nurses, orderlies and domestic help. The nurses' school-room is located upon the second floor of the central section, and the third floor of the central section has commodious hall space which is furnished as a sitting room and meeting room for the nurses.

The surgical department and operating room is located on the first floor of the central portion north of the hallway. This portion is one story in height and is well lighted by north windows and overhead skylights. Here are located sterilizing room, preparation room, etherizing room and general supply room, the latter for surgical and medical supplies only.

In the central portion also is a large platform elevator, arranged for hospital use and which can accommodate a wheel stretcher. The elevator travels from the basement to the third floor. In the basement of the central portion is a kitchen in which is prepared all of the food for patients and employees, with the exception of bread and such food as requires baking in the bake ovens of the institution. On either side of the kitchen are dining-rooms for nurses and employees. In this basement is a small laundry where nurses and employees can launder such clothing as they choose to do themselves.

As stated above, the wards for women extend to the east of the central section and those for men to the west. The plan of the building for both men and women is alike. Each side consists first of a two-story section occupied by wards and day room, and on the extreme ends of these sections are disposed, at right angles with the long dimension of the building, two wings of three stories containing single rooms for patients on the first and second floors, dormitories for patients on the third floor and a few rooms for employees on this third floor.

At the right and left of the admission rooms on the first floor are disrobing rooms and baths, one for men and one for women, which are used for incoming patients for the initial bath. Opening immediately out of each bath is a chamber in which the patient is placed in bed immediately after the bath and where a preliminary examination of the patient is made at once. This preliminary examination consists in a careful examination of the body externally, making note of all marks, bruises, injuries, or peculiarities,

and a physical examination which will insure information as to whether the patient has any fractures or whether physical disease is apparent. In a brief examination an attempt is made at this time to gain a general idea of the patient's mental state and attitude. The physician then assigns the patient to a ward or room on the wing and a statement of the preliminary examination is passed at once to the typist for record.

Opening out of the hallway of the central section on the first and second floors and adjoining each ward is a dining-room for patients with a connecting serving room to which food is conveyed from the basement by means of dumb-waiters. There are four of these dining-rooms, each having a seating capacity equal to the capacity for patients of each ward.

There are four wards, two for the men's side and two for the women's side, but each ward is subdivided in such way as to provide for the classification of incoming cases according to their condition. There are two sections in each ward, each containing 10 beds. Between these two sections is a day space. On the front of the bed section are out-of-door sleeping balconies, arranged to be open in summer and closed or partially closed with glass in winter. These spaces can be warmed by direct radiation. These so-called sleeping balconies contain five beds each and there are eight of them upon the building. Passing on one comes to the single-room section in the extreme wing. Each floor contains 10 of these rooms. These rooms are especially provided for disturbed patients and those who are unsuitable for the general wards. These single-room sections are closed off from the general wards by partitions having wire-glass panels in the upper portion and wire-glass panels in the upper portion of the doors. In connection with the single-room section, exposed to the south, are sun rooms. Connected also with each single-room section is another sleeping balcony containing four beds.

The dormitory upon the third floor of each extreme wing has accommodations for 18 beds. This dormitory was included in the plan for the purpose of providing a place for 18 men patients and on the women's side also 18 women patients of the quiet and orderly class who would assist in the work of the hospital.

Each ward has a total of 44 beds. Together with the dormitory accommodations there is a total of 212 beds for patients. There is

accommodation besides for 40 employees, physicians, nurses and other help.

Each ward on each floor is provided with lavatories arranged to serve both wards and sleeping balconies; clothes rooms; linen rooms; and utility closets.

In the extreme wings are located the general bathing facilities. For the general bathing, shower-baths are provided. There are tubs in the water section at each end of the ward for patients who are too feeble to receive shower-baths and for uncleanly patients.

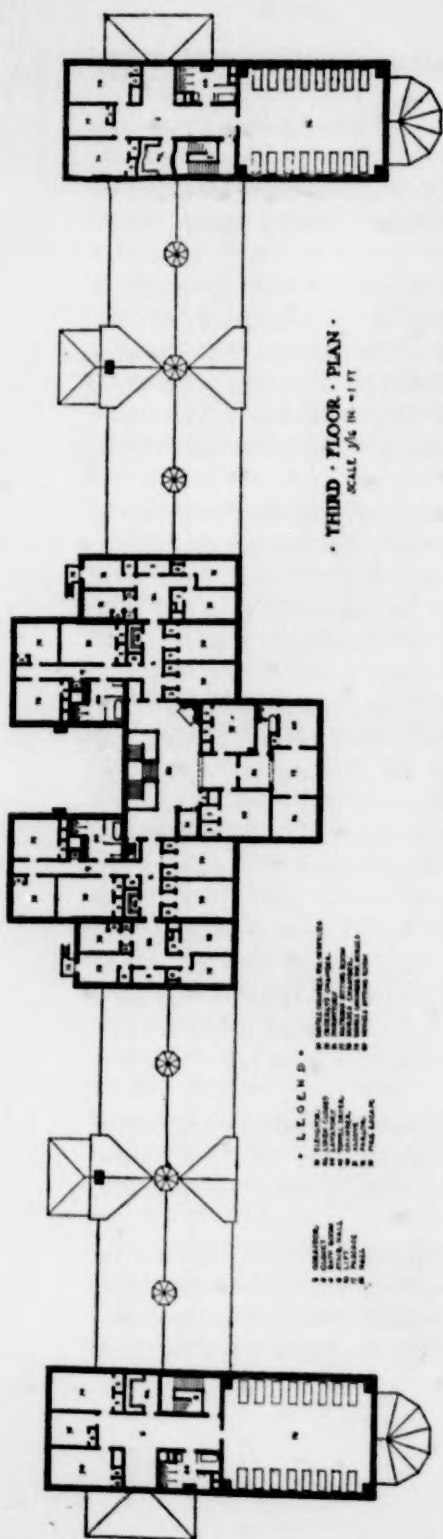
Between the wards and the single-room section is an iron stairway enclosed in brick, which serves the purpose of general traffic and also as an enclosed fire-escape.

In the extreme ends and in connection with the single rooms are located the tubs for continuous bathing, four for the men's side and four for the women's side. It has been our experience thus far that four tubs are sufficient for the men's service, but that most of the time we need eight tubs for the women's service and there are occasions when we could very well use 12 tubs for women. The basement of the building extends well above ground, affording well-lighted rooms. In the basement are rooms for hydrotherapy. Here are located also the pathological laboratory, and mortuary and post-mortem rooms.

The method of heating is both direct and indirect. The indirect heating is by means of stack rooms in the basement, the warm air being forced into the wards by fans, the motive power of which is electricity. The heating is furnished by the central boiler plant. The lighting is by electricity. The lamps in the patients' wards and departments are so controlled by a series of switches that they can be brilliantly or very dimly lighted. All ward lights are enclosed in white porcelain globes, so that no direct rays from the lamps meet the eye.

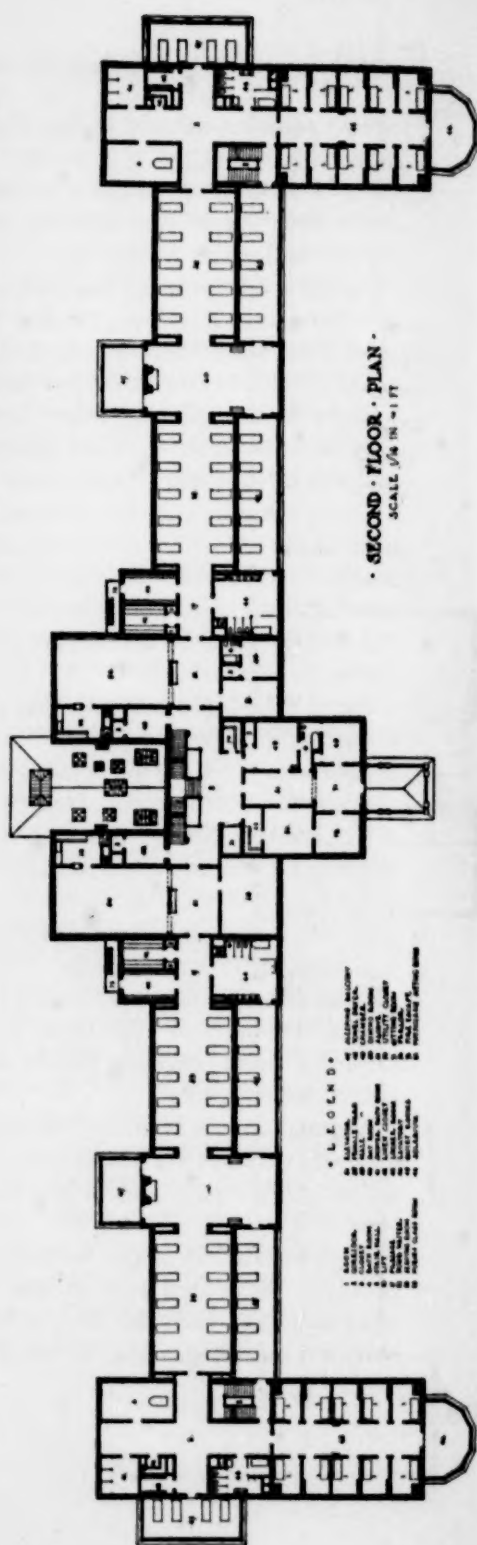
Throughout the building there is a total of 80 beds on wards for patients; 56 beds are distributed in the sleeping balconies; there are 40 single rooms and 36 dormitory beds, making the total 212 beds.

The construction of this building was begun in 1910 and finished in 1912. The total cost of the building with all connections, equipment and furnishings was \$326,000. The cost per bed per patient, everything included, was \$1537. It will be borne in mind



• LEGEND •

1. LECTURE ROOM
 2. LABORATORY
 3. LIBRARY
 4. OFFICE
 5. CLASS ROOM
 6. READING ROOM
 7. STUDENT UNION
 8. GYMNASIUM
 9. DORMITORY
 10. KITCHEN
 11. BATH
 12. HALL
 13. STAIR
 14. ELEVATOR
 15. REST ROOM
 16. TOILET
 17. CLOSET
 18. LOCKER
 19. STORAGE
 20. JANITOR
 21. MECHANICAL
 22. ELECTRICAL
 23. PLUMBING
 24. HEATING
 25. COOLING
 26. VENTILATION
 27. SMOKE
 28. EXHAUST
 29. FUEL
 30. WATER
 31. SEWER
 32. GAS
 33. OIL
 34. ELECTRICITY
 35. TELEPHONE
 36. TELEGRAPH
 37. RADIO
 38. TELEVISION
 39. MOTION PICTURE
 40. SOUND
 41. LIGHT
 42. HEAT
 43. COOL
 44. DRY
 45. WET
 46. CLEAN
 47. DIRTY
 48. HOT
 49. COLD
 50. FAST
 51. SLOW
 52. STOP
 53. GO
 54. OPEN
 55. CLOSE
 56. LOCK
 57. UNLOCK
 58. PAUSE
 59. RESUME
 60. END



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 58. PAUSE
 59. RESUME
 60. END



• FIRST FLOOR PLAN •
SCALE 1/8" IN = 1 FT

- LEGEND •
- 1. MEN'S QUARTERS
 - 2. WOMEN'S QUARTERS
 - 3. BATHS
 - 4. KITCHEN
 - 5. DINING HALL
 - 6. OFFICE
 - 7. RECEPTION ROOM
 - 8. WAITING ROOM
 - 9. NURSING ROOM
 - 10. LABORATORY
 - 11. X-RAY ROOM
 - 12. DENTIST'S ROOM
 - 13. DRUG STORE
 - 14. FIRST AID ROOM
 - 15. STERILE ROOM
 - 16. DISINFECTANT ROOM
 - 17. CLOSET
 - 18. HALL
 - 19. STAIRS
 - 20. ELEVATOR
 - 21. ENTRANCE
 - 22. RECEPTION ROOM
 - 23. WAITING ROOM
 - 24. NURSING ROOM
 - 25. LABORATORY
 - 26. X-RAY ROOM
 - 27. DENTIST'S ROOM
 - 28. DRUG STORE
 - 29. FIRST AID ROOM
 - 30. STERILE ROOM
 - 31. DISINFECTANT ROOM
 - 32. CLOSET
 - 33. HALL
 - 34. STAIRS
 - 35. ELEVATOR
 - 36. ENTRANCE



• BASEMENT PLAN •
SCALE 1/8" IN = 1 FT

- LEGEND •
- 1. MEN'S QUARTERS
 - 2. WOMEN'S QUARTERS
 - 3. BATHS
 - 4. KITCHEN
 - 5. DINING HALL
 - 6. OFFICE
 - 7. RECEPTION ROOM
 - 8. WAITING ROOM
 - 9. NURSING ROOM
 - 10. LABORATORY
 - 11. X-RAY ROOM
 - 12. DENTIST'S ROOM
 - 13. DRUG STORE
 - 14. FIRST AID ROOM
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 - 33. HALL
 - 34. STAIRS
 - 35. ELEVATOR
 - 36. ENTRANCE

RECEPTION HOSPITAL AT HOWARD, R. I., FOR THE STATE OF RHODE ISLAND.

that besides providing for patients we have made accommodations for 40 officers and employees.

The domestic work of this unit is in charge of the assistant housekeeper, under the direction of the dietitian and housekeeper of the main hospital plant.

The reception hospital is in the immediate charge of an assistant physician, who is the head of the department. He has two medical assistants. The physician-in-charge is responsible to the superintendent of the hospital for the conduct of the whole reception hospital unit, for the proper reception and treatment of patients, and for the proper maintaining of all discipline. In fact he has the sole charge of the reception hospital and the receiving service and stands practically in the same relation to the superintendent that a superintendent does to his board of managers. The superintendent of nurses is responsible to the chief assistant physician primarily for the nursing care of the patients in the receiving service and for the conduct and discipline of the nursing service.

The nursing of the wards is in charge of graduate nurses, one graduate nurse being in charge of each ward, and this is true of the men's wards. Under the charge nurses are the pupil nurses. There are pupil nurses on the men's wards; the male employees on the men's wards who perform attendants' work stand in the same relation to the charge nurse as orderlies in a general hospital.

The daily medical work of the reception hospital and the entire care and responsibility for the patients on the receiving service rests in the hands of the three physicians assigned to this service. The remaining physicians on the medical staff, namely, those who have services in the main hospital, are related to the receiving service as follows:

In the order in which they are admitted all incoming patients are assigned in rotation to each member of the medical staff, whether on the receiving service or on service at the main hospital, for the purpose of making the critical physical and mental examination and presenting the case before the clinic. In this way although the physicians of the main hospital may have services on which the patients are of the chronic class, yet by means of this plan they are brought in contact constantly with the new and acute cases.

The superintendent of the hospital does not have offices at the reception hospital. The medical records of the patients are retained at the reception hospital as long as the patient remains there. As soon as the patient is paroled or is transferred to the main hospital the medical record is filed in the office of the main hospital. There is filed at once, however, at the main hospital, an index card, containing the usual information of such card together with the addresses of relatives and friends. As soon as a case has been presented at the clinic a blank, which is a symptom index, having been filled out at the time the patient was presented to the clinic, and which has had checked upon it physical and mental symptoms which the patient presented at the time of the examination together with the diagnosis and opinion of each member of the medical staff, is filed at the main office.

All correspondence relating to patients in the receiving service passes through the hands of the superintendent. Practically all inquiries by telephone and by visitors are answered directly by the physician in charge of the receiving service or his assistants.

The first floor of this hospital contains the admission wards. The second floor is for convalescents, or for patients who can shortly be transferred to quiet wards. An admission rate of 500 annually and 212 beds allow an average of 22 weeks' residence in the reception hospital for each patient admitted. After the critical study of the patient has been made and he has been presented at the clinic for diagnosis, if an organic case or manifestly chronic or senile, the patient may be transferred at once to a ward of the main hospital. An acute and apparently curable case is retained in the receiving service or convalescent wards of the building as long as there is reasonable hope of recovery. The aim is that all recoverable cases and those who show marked improvement shall not at any time be transferred to the main hospital, but shall be paroled from the reception hospital. With the exception of surgical cases no transfers are made from the main hospital to the reception hospital, all patients at the main hospital who are ill being cared for in the infirmary wards of the main hospital.

DISCUSSION.

DR. HILL, of Maryland.—Mr. President, even at this late hour it has been interesting to hear these details of hospital administration. As to their designation probably a psychopathic hospital or ward is as good as any. A good old lady always wept when her minister preached a certain sermon and when asked why, said "the beautiful way you pronounce the word Mesopotamia always brings tears to my eyes." While psychopathy means nothing more nor less than insanity it has a decidedly classic ring and in the minds of the public suggests something out of the usual. But the chief advantage of such building as the doctor describes with its high sounding name, is that in the lay mind it is a kind of neutral ground between the sane and the insane world and one is less reluctant to send his afflicted friend to such a hospital than an asylum for the insane. With this object in view we might go further and call it a neuropathic hospital. It is quite fashionable to boast of being nervous and the gentle sex who some think are destined to rule the world, delight to match their nervous symptoms when they meet, making insanity popular, or at least less objectionable by giving it a more attractive name would present very obvious advantages. Another suggestion is to establish these hospitals more remote from the well-known state institution, even in the adjoining town; if not too distant for the supervision of the superintendent. This would at least tend to bridge the gulf between sanity and insanity and render the placing of the mentally disturbed under proper treatment easier for the patient and the family.

DR. HARRIS.—Mr. President, the three papers which have just been read are very important and they cannot properly be discussed within the limitation of the time fixed by the association. The questions brought up are those in which I have been very much interested for a number of years. I was specially interested in the paper by Dr. Harrington, and the illustrations thrown upon the screen. It was a most excellent presentation, and without any intention of making criticism, I would like to make some suggestions. I notice there is no arrangement made in the reception hospital for out-door clinics or any special examination rooms for the eye, ear, nose, throat and teeth, which seem to me to be very important. One objection I would make to the reception hospital as shown by Dr. Harrington, is the location of the autopsy room and laboratory. They should be disconnected. I think where large and airy basements are constructed, they should be used as recreation rooms, especially in cities, where there is lack of ground for proper recreation activities and entertainment. This space should be used for that purpose, where no arrangements for roof gardens are made. One thing I like about the construction mentioned by Dr. Harrington, as well as Dr. Barlow, is the use of porches for special sleeping space for special cases. That is most important. Another very important point is the breaking up of patients into small groups. We all know that where a patient has been put on a ward with a hundred or more patients, with the lack of help to give individual attention to

that particular patient, it cannot fail to result in damage, and that is where we fail to do our duty. In the organization of a hospital service of this nature, it seems to me there should be a clinical director to direct the work of the staff, to see that active and intensive treatment is given to each and every patient, to see that proper histories are procured and all facts about the case properly entered. There should also be an expert pathologist, who should attend to all the pathological work, and with the assistance of the clinical director, correlate all the facts so that they may be useful, not only to the staff, but to the profession at large. It seems to me we would gain a great deal by this procedure. A great deal of material goes to waste without benefit to the general profession. We should work with the general profession and medical colleges as far as possible—and thus we revert to the discussion of this morning, that of having psychiatry and psychopathology taught in the medical colleges; that medical students should be brought to this hospital and given advantage of the study of the large amount of material at hand. We should also use as coordinate factors in our work the social workers of the community, mental hygiene committees and charity organizations and bureaus. Public lectures should be carried along in conjunction with this so that we may spread abroad all possible information upon the subject in question.

These remarks would apply also to the first paper on social work among those suffering from mental disease. Concerning the use of the word "insane" I would make every effort to eliminate its use and substitute "mental disease" or "psychosis."

DR. MITCHELL, of Brockville, Ontario.—We have reached so late an hour and already a great deal has been said on this interesting subject, so that I shall not make any extended remarks.

At our hospital in Brockville, Ont., we opened a reception hospital last August. The idea was conceived by Dr. Forster, at that time superintendent, and who is now in Toronto. He drew the original plans of the hospital which, however, were considerably altered and many changes were made. Our reception hospital is not so large as the one which Dr. Harrington has shown us on the screen, but we have 60 beds and our total population is about 800 so that it reasonably meets our wants. We have solar rooms which are similar to the rest rooms described by Dr. Harrington. We find them very useful indeed for general treatment. We have very wide enclosed verandahs that are in constant use both for exercise and fresh air for the patients and also as dormitories when needed. These are fitted up with glass for winter but no heat is provided, but that does not prevent them from being very useful. Our reception hospital has not been in operation very long but it fills a want which we had for a long time.

Our Ontario law has been changed so that now voluntary patients can be admitted. We have a considerable number of these and the reception hospital permits us to keep patients more closely under observation and we can also give them more individual attention than we formerly could.

We are very short of physicians on all staffs of the Ontario Hospital at present, as nearly every available man has gone to the front. I have been left with an Assistant Superintendent, Dr. Forster also has an Assistant Superintendent with one or two juniors, Dr. English has two, Drs. Robertson and Beehmer have lost their Assistant Superintendent and the Superintendent himself at Kingston has been overseas. These men are all doing psychopathic work in the various hospitals in France and England. At the present time there is not a medical graduate in Canada who can go into service in the hospitals, as they have all, both last year and this, gone into military work.

The reception hospital is a very excellent idea and anyone who is able to establish one will find it of great value.

DR. OSTRANDER.—Mr. President, I was very glad to listen to the papers and the discussion. But it surprised me very much to learn that the idea is considered at all new. In Kalamazoo we have had detached hospitals for the intensive treatment of cases of insanity for the past 15 years, and we have segregated our acute cases for 20 years. The method is good for the patient; good for the physician and an excellent thing for the nurses—a good thing all around and from long experience I can recommend it, and I certainly hope that the ideas mentioned in this paper will be generally adopted.

DR. HARRINGTON.—Mr. President, I want to agree with what Dr. Barlow has said about transfer of sick patients from the main hospital to the receiving hospital unit. I think that such practice interferes with the efficiency of receiving service and detracts from the aim of conducting such service as a separate unit.

With a complete surgical operating-room layout in connection with a reception hospital I think the only patients who should be transferred to it from the main hospital are such cases as require operative surgery.

A SOCIOLOGICAL, NEUROLOGICAL, SEROLOGICAL
AND PSYCHIATRICAL STUDY OF A
GROUP OF PROSTITUTES.*

BY DR. JAU DON BALL AND DR. HAYWARD G. THOMAS,
OAKLAND, CALIFORNIA.

The following report is the result of a study of 320 prostitutes in the city of San Francisco, California. This study was undertaken by the Neurological and Psychiatric and Ophthalmological Department of the Oakland College of Medicine and Surgery, Oakland, California, by Dr. J. D. Ball, Professor of Mental and Nervous Diseases, assisted by Dr. Paul Jerome Anderson, Oakland College of Medicine and Surgery; Dr. Hayward G. Thomas, Professor of Ophthalmology, the same college; and with the assistance of Mr. August Vollmer, Chief of Police, Berkeley, California, and with the sanction and assistance of the San Francisco Police Department. Great credit is due to Chief White of San Francisco Police Department, whose cooperation and interest in the investigation made the work possible, and certainly less difficult than it otherwise would have been.

The investigation lasted during a period of 18 months, from August, 1915, to March, 1917, and was unusual in approach, for the reason that all examinations were made in the houses of prostitution during the "working" hours. This was thought to be the best method, as environmental conditions were normal for the work at hand; the inmates being at their "best" and not under the restraint incident to examinations made in institutions or psychological laboratories in connection with courts. Unusual and detracting environmental conditions and emotional states were thus considered eliminated to a large degree. In all, 45 trips were made; 66 houses of prostitution visited; 270 hours or 33½ days of eight hours' actual time, spent in interviews and examinations.

The expense of this investigation, including laboratory work, was borne by the investigators.

* Read at the seventy-third annual meeting of the American Medico-Psychological Association, New York, May 29-June 1, 1917.

The reason for this study being a desire to contribute the data and information so obtained in the hope that it might be of value not only in stimulating similar studies, especially from the neurological and psychiatric standpoint; but in aiding sociologists and others interested in the great social problem of prostitution to a clearer understanding of a few of its causes. The data obtained are presented for what they are worth, and their value lies in the fact that they are the result of unbiased investigation and examination. No preconceived ideas as to possible results were formed; and the personal equation of the examiner (especially regarding any fads, fancies, or fanaticisms relative to his own particular specialty, had he possessed any such) was eliminated as far as possible.

The facts resulting from careful examinations are thus presented to you without any hesitation or mental reservation. Whatever notions or secret ideas any of us might have held regarding this subject were dispelled by the facts obtained.

METHODS OF EXAMINATION.

The following form was used in this examination. Some very valuable suggestions were obtained from Dr. Healy's *Individual Delinquent*.

Name	Race
Working name	Height
Residence	Color of hair
Age	Nativity
Color of eyes	Weight
Date	Build
Examined by	

HEREDITY.

Maternal grandfather	
Maternal grandmother	
Paternal grandfather	
Paternal grandmother	
Father	Brothers
Mother	Sisters
Parents related	
Mental	Nervous
Diabetes	Syphilis
Rheumatism ...	Chorea
	Epilepsy
	Bright's disease ..
	Eruptions
	Cancer

HEALTH HISTORY INCLUDING HISTORY OF INFANCY AND CHILDHOOD.

Diseases of childhood, adolescence, and adult life, especially convulsion or disturbances of consciousness.....

Enuresis Birth Trauma

Operations Menses Fright or shock.....

Adolescent instabilities or peculiarities, both mental and physical.....

.....

Comparison of development with other members of the family.....

.....

Somnambulism, night terrors, etc.

.....

SOCIOLOGICAL EXAMINATION.

Housing and financial conditions in detail.....

Occupation of father.....

Reasons for leaving home.....

Whether raised in city or country.....

Companionship; opportunities afforded by relatively good or bad association

.....

Amusements in detail.....

.....

Opportunities for religious culture.....

Former occupation

Occupational opportunities

Character of places worked in.....

Married Single Widow Divorced.....

If married, complete history of home life.....

Miscarriages Still-born children Children

MENTAL AND MORAL DEVELOPMENT.

School history in detail, with individual's own reaction toward it.....

.....

Education

Grade reached

Much absence

Character of association with opposite sex.....

Use and development of special talents.....

Habits: Drug..... Alcohol Tobacco Sexual.....

ADDENDA.

At what age enter sporting life.....

Reasons for entering sporting life.....

Impulse Comrades Alcohol Poverty

Unsatisfied interests

TYPES OF PERVERTS MET WITH.

.....

MENTAL EXAMINATION.

Ideation	Hallucinations
Judgement	Illusions
Sleep	Delusions
Attention	Orientation
Stories, reaction	Emotions
Special memory	Suicide
Speech	Stereotypy
Ethical questions	Catalepsy
Insight (appreciation of place in society)	

NEUROLOGICAL EXAMINATION.

	Right.	Left.	
Plantar	Superior Tendons.
	Triceps.
Pathological reflexes	Biceps.
	Wrists.
Tendo Achilles	Scapulæ (Graves).
KK	Cervical Skin.
Epigastric	Thyroid.
Heart	Cranial Nerves.
Teeth	Lungs.
Deformities	Sensation.
Status Corpus	Vasomotor.
Skin	Atrophy.
Pain	Gait.
Tremor	Dermographia.
Joints	Hypertrophy.

EYES.

Pupils	Fundus
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GENERAL INFORMATION.

Accompanied by a sergeant of police in plain clothes, we entered the houses of prostitution where the "madames" were informed of the nature and object of our visit. At no time were we met with antagonism and distrust. Every facility and assistance was

offered by the "madames," and after the inmates ascertained individually the reason for the interruption of their work, they entered into the spirit of the investigation with a manner most pleasing and willing. Occasionally, however, an individual would be encountered who would be grossly excited or emotionally negative, and it would take considerable time to gain her consent for examination. Where such negativism was encountered, it was usually the result of fear engendered in the individual by either vague rumors concerning our methods or by lies told by those already examined, having as an object to frighten the subject, often as a "joke," or a manifestation of a psychosis. In quieting these individuals we were invariably assisted by their less emotional sisters.

Each examiner had a room where he was alone with the subject. The order of the examination was:

- 1st. The taking of blood for subsequent serological examination.
- 2d. History taking, and general sociological and educational examination.
- 3d. Psychiatrial examination.
- 4th. Neurological examination.
- 5th. Physical examination.
- 6th. Ophthalmological examination.

The reason for the taking of the blood, for serological examination, first, was to eliminate at once the fear of the taking of the blood, which we early found to be a distracting factor if left to the last.

The form above given and used in this investigation gives an idea of the extent of this research. However, many questions were asked which are not included in the form, and were necessitated by the individual cases to obtain a correct sociological and psychiatrial impression.

Also, after the conclusion of the examination of a group for the evening, the examiners would spend at least forty minutes, sometimes an hour, discussing the cases examined. This was especially valuable, as by it they were enabled to digest the impressions of each other regarding the individuals studied.

Of special interest to this organization will be the results of the serological, neurological, ophthalmological and psychiatrial examinations.

A. SEROLOGICAL DATA.

Original Wassermann method was used,¹ occasionally results being checked by other laboratories, all sera being run along with sera from private patients.

Needles were specially prepared and sterilized and placed in specially prepared and sterilized test-tubes until used, the test-tubes being used to collect the blood. Therefore, no boiling of needles was necessary in the houses, each subject having individual needle and tube.

Seventy-four per cent of the total number of 320 had positive Wassermann reaction with blood serum; 3 per cent gave a negative Wassermann reaction; and 23 per cent admitted having had syphilis or were under active treatment for the disease.

B. NEUROLOGICAL DATA.

It has been the custom, only too often, not alone by the general physician but also by the neurologist, to pass lightly over a slightly exaggerated or a slightly diminished, or even retarded reflex.

If a reflex is greatly exaggerated, or very sluggish, or absent, it is so recorded. The finer degrees of variation from the normal are seldom recognized and certainly infrequently recorded.

This brings up the question of what is the normal response of a deep or a superficial reflex. In the clinic of the Neurological Department of the Oakland College of Medicine and Surgery, it has been the custom, since 1913, to use an arbitrary method of recording reflexes, as follows:

Normal is considered the reaction as a result of a stimulus applied always in the same manner and with the same degree of intensity; and of necessity, for clinical purposes, must be taken into consideration the personal equation of the clinician.

Experiments have been conducted and time reactions developed for the various reflexes; but as yet the practical application of these methods is distant, especially where time is a factor. Accordingly, a system of recording reflexes ought to be adopted that will at least be more or less universally used, even though the personal equation of the clinician does enter.

For our purposes we have used *N* for normal, and decimals of five up to twenty, either plus or minus, for exaggerated or diminished reflexes, and 0 (zero) for absent reflexes. For example:

A normal KK in our conception is the response of the jerk to a blow from a hammer always of the same size and weight, and applied always with the same force. By experience it is learned that a jerk of a certain amplitude will take place normally as a result of the application of the stimulus under same conditions.

If there is an increase in the quickness of the response of the jerk to the usual stimulus, this is measured in degrees as +5, +10, +15, or +20 and might be further explained as follows: Slightly exaggerated, exaggerated, greatly exaggerated, and very greatly exaggerated (the latter approaching a leg clonus or the greatest possible increase from the least possible stimulus). If there is a decrease in the quickness of the response of the jerk to the usual stimulus, it is recorded in degrees as -5, -10, -15, -20, or 0, and in language can be designated as slightly diminished, diminished or sluggish, greatly diminished, very greatly diminished, and absent. (A very greatly diminished reflex being the least possible response to the greatest possible stimulus.)

This method can be applied to all of the deep and superficial reflexes, and gives an arbitrary method of recording degrees of responses of the various reflexes.

No originality is claimed for this method except that it was developed in the above-mentioned clinic, and a plea is made for the adoption of some standard for recording reflex data. Later it was ascertained that Dr. Sheldon of the Neurological Department of the Mayo Clinic, in Rochester, Minnesota, was using a similar method of recording his neurological observations. Only he used multiples of 1, 2, 3, 4. Just how long he has been using this method, I do not know.

Ninety-seven per cent of these women manifested either pathological or perverted reflexes or sensory disturbance.

The scapulæ of 270 cases were examined. One hundred and sixty-seven were found to be scaphoid ("scaphoid scapulæ, Graves'"), fifty-three straight and fifty normal.

An exhaustive neurological analysis cannot be made in this report; but enough is given to demonstrate that all syphilitics are liable to perversion of their reflexes, and that not enough attention has heretofore been paid to slight differences in quantity and quality of reflex action, especially in those individuals denying a luetic infection or being unconscious of it; such points as disproportion between reflexes are also often entirely overlooked.

C. PSYCHIATRICAL DATA.

From the form used in this investigation, it will be seen that a fair mental examination was conducted.

This examination also considers as far as possible the "make-up" of the individual, and also included the mental status, which was ascertained by leading the individual under examination into a general conversation and gradually drawing out any peculiar ideas or observing deficiency of general intelligence, not here entering into a discussion of the psychological problem of whether an individual may have general intelligence but rather using it to indicate a normal individual, as psychiatrists understand that conception.

By that same method, the degree of mental intelligence was ascertained.

Occasionally a Binet-Simon test was made on an unselected individual and in such cases either feeble-minded or subnormal, were defined.

A friendly feeling was first established between the investigator and the subject under investigation, and as the conversation progressed, a few direct questions were thrown in, and the degree of intelligence, memory for recent and past events, family history, personal history, data of life, general knowledge, such as calculation, writing, retention, were ascertained. Much was learned from the general attitude and manner, facial expression, speech, emotional responsiveness, and replies to ethical questions.

At no time did we find any fully developed major psychoses. However, we did find types such as manic-depressive, dementia præcox, and hysterical.

The number of manic-depressive was small (and the symptoms were mainly brought out when the subject was under the influence of alcohol or drugs, at such time the subject stating she was either greatly excited or severely depressed, more often depressed and suicidal), usually with history of abnormally long periods of mild depression or excitement preceding or following alcoholic or drug indulgence.

The dementia-præcox types were ascertained by eye-ground findings in association with results of general mental, neurological and physical examination.

The number of manic-depressive types so found was 64 or 20 per cent.

The number of dementia præcox was 123 or 38.4 per cent.

The number of hysterical, 19 or 5.9 per cent.

The remainder, 114 cases, we considered subnormal or defective mentally without manifesting any indications of a psychosis. The number having attempted suicide was 35 or 10.9 per cent. One had attempted suicide three times and one, twice.

D. SOCIOLOGICAL DATA.

By sociological data we mean particularly sociological causes, if there can be such, of prostitution, with especial reference to this group. Here, we do not assume that the science of sociology treats of "social evils and their remedies," but rather looking at it as Elwood has well stated as "social evils being incidental in normal social evolution."

Nor have we lost sight of the biological aspect of the subject.

NATIONALITIES.

Country.	Number.	Country.	Number.
France	55	Sweden	4
America	49	Irish-American	1
Germany	43	Austria	4
Ireland	30	Poland	3
Jews of all nations.....	20	Belgium	3
England	19	Denmark	2
Scotland	17	American Indian (half breed)..	2
Mexico-Spanish (half breeds)..	16	Holland	1
Scotch-Irish	10	Roumania	1
Italy	8	Finland	1
Russia	7	Unknown	19
Canada	5		

By "country" is meant that the individual was born in the country indicated, or the parents were natives of that country.

OCCUPATION OF FATHER.

It is interesting to study the following table of Occupation of Fathers of this group of prostitutes. On close analysis it is found that the largest number of fathers were *farmers* (12 per cent). Next in order we have carpenters (3.75 per cent); then saloon-keepers (3.25 per cent); then tailors and barbers (each 2.5 per cent); then clerks (2 per cent).

Among the fathers, we find seven physicians; two lawyers; ten each of contractors and tailors; seven each of laborers and railroad employees; six each of merchants, miners, musicians, and steam engineers; five each of stone masons, blacksmiths, and innkeepers; four each of barbers, enlisted army men; three each of grocers, painters, lumbermen, plumbers, electricians, and shoemakers; two each of school teachers, millers, clergymen, brewers, teamsters, jewelers, sailors, mechanics, and civil engineers; and one each of shoe manufacturer, potter, dairyman, salesman, gardener, printer, baker, factory-worker, moulder, bank clerk, artificial flower maker, draughtsman, tanner, bank cashier, peddler, scavenger, architect, government clerk, bookbinder, furrier, chef, broker, piano maker, tent-maker, bricklayer, newspaper reporter, and grain tester. The balance did not know occupation of father or for some reason would not answer.

FORMER OCCUPATIONS.

Former occupations of the prostitutes in this group include the following: Hair-dressers and manicurists, 10; waitresses, 27; hospital nurses, 4; factory workers, 16; housewives, 4; seamstresses, 11; servant girls, 60; stenographers, 16; department-store clerks, 40; telephone operators, 20; artificial flower makers, 7; laundry workers, 13; dance-hall entertainers, 6; milliners, 7; governesses, 3; convent student, 1; barber, 1; chorus girls, 19; high-school teacher, 1.

REASONS FOR ENTERING LIFE OF PROSTITUTION.

The various reasons for entering life of prostitution as spontaneously given by the individuals of this group being:

"Easy money"; "thought her previous sex experience unfitted her for marriage"; "induced by other girls"; "language difficulty"; "wanted clothes"; "put in business by husband"; "wanted sexual intercourse"; "did not like to work"; "good time"; "induced by men"; "to support child"; "curiosity"; "excitement"; "easiest way to make a living"; "imagined a gay life"; "fool, I guess"; "mother to support"; "deserted by husband"; "trouble"; "drifted from cabaret"; "thought was pregnant"; "pregnant and discouraged"; "too strict at home"; "induced by prostitutes"; "wanted nice things"; "seduced by employer";

"wages too low" (principal answer of factory girls, servant girls and clerks); "abuse at home"; "bad company"; "just happened"; "alcoholism"; "in debt"; "knew others in business"; "wanted money."

ASSOCIATES.

One hundred and forty-four or 43.75 per cent stated positively that their childhood associations were bad; 96 stated that their childhood associations were good; eight stated that they had no associates; the remainder stated that they had both good and bad or refused to answer.

AMUSEMENTS.

The various kinds of amusements appealing to this group, both as children and at present are: "Shows"; "dancing"; "roller skating"; "horseback riding"; "theater"; "music"; "fancy work"; "athletics" (several of this group being professional swimming girls); "just fool around"; "Sunday-school"; "parties"; "sewing"; "everything tough"; "eating"; "cafes"; "picking flowers"; "card games"; "picnics"; "dolls"; "excitement"; "reading novels"; "movies".

REASONS FOR LEAVING HOME.

"Dissatisfied with home"; "stepmother" (11); "stepfather" (2); "mother dead" (2); "early marriage" (28); "orphan" (11); "to work" (36); "eloped" (2); "to enter house of prostitution" (9); "family quarrels" (20); "stage struck" (2); "needed money" (5); "to see life" (1); "pregnancy" (10). One at 12 years; one at 14 years; two at 15 years; one at 16 years; remainder older; "deserted by lover" (8); "direct from home" (9); "wanted to go to city" (9); "too large family" (1); "ran away" (11); "induced to leave by another girl" (1); "adoption" (1); "bad company" (18); "poor home control" (1); "alcoholic father" (1); "to better herself" (1).

OCCUPATIONS OF MOTHERS.

Housewives; cooks; waitresses; trained nurse (1); dress-makers; clerks; laundress; boarding-house keepers; prostitutes (4); physician (1).

FINANCIAL CONDITION OF PARENTS.

Seventy-one stated parents were very poor. Remainder stated parents were either in fair financial condition or provided well for their families. On being asked what they meant by being well provided it was ascertained homes (either farm or small homes in cities), plenty to eat and decent clothes. None stated parents were wealthy.

EDUCATION.

Sixteen per cent entered first year of high-school; 46 per cent reached sixth grade; remainder gave definite evidence of being defective or subnormal. By subnormal we adopt Dr. Healy's conception of subnormal.

AGES OF FIRST SEXUAL EXPERIENCE.

It will be noted that the greatest number of inmates had their first sexual experience between the ages of 14 years and 18 years.

AGES AT WHICH ENTERED SPORTING LIFE.

Here it is observed that the greatest number enter the life of prostitution between the ages of 17 years and 22 years.

The graphic charts show this very well.

No attempt is here made to further analyze these figures except to mention that in a large percentage of juvenile delinquents improper sex experiences occur.

E. OPHTHALMOLOGICAL DATA.

The ophthalmological examination was made to check up the work on optic neuritis done by one of us (Thomas) as per published article in the *AMERICAN JOURNAL OF INSANITY*, July, 1915, "Optic Neuritis and the Color Fields in the Diagnosis of Syphilis, Hyperthyroidism, Neurasthenia, Dementia Præcox, Manic-Depressive Insanity, and Third Generation Syphilis."

The claim was made that many optic discs were classed as normal which were distinctly pathological, the principal point in the disc being the filling up of the normal excavation. This was found out by accident in noticing optic discs which had, when first observed, no excavation, and under treatment the excavation had reappeared.

Any toxic condition may produce this condition of filling up of the disc, and it is also noticed that the condition and degree of

filling up, or swelling or cloudiness, changes from time to time, changing in intensity, as the patient may absorb or get rid of toxins. This may mean any infection, intestinal, appendicial, etc., tonsil or teeth infection, mineral poison, or most often syphilis.

The condition of the optic disc is a fairly reliable barometer in judging the condition of the nervous and circulatory system, the color or swelling of the discs and also the condition of the vessels whether the veins are dilated little or much and tortuous or angular and whether the arteries are tortuous or not.

Tyson and Clark in the Archives of Ophthalmology, July, 1912, published a résumé of their studies of 109 cases of optic discs and vessels of dementia-præcox cases and give their summary as follows:

1. Congestion of discs; hyperemia and œdema; dilated and dark-colored veins; slightly contracted arteries, and blurring of the edges of the discs, all varying in degree. These changes constitute a low degree of perineuritis of the optic nerve.

2. Congestion of the nasal side and pallor of the temporal side, dilated veins and contracted arteries.

3. Pallor of the discs, dilated veins and contracted arteries. These changes constitute anemia and partial atrophy of the optic nerves. The more marked changes in the eye-syndrome were found in the more rapidly deteriorating types of dementia præcox.

In all these types (see chart) will be found various degrees of filling the Porus Opticus or the "P. O." for short. In Nos. 1 and 2 we may see a tiny dot of a P. O., or absent in one and hazy in the other. In the third variety there is rarely any sign of excavation; they are pale, yellowish pale, like a full moon on a slightly hazy night, and doughy. The condition has the appearance of a beginning atrophy, but atrophy is rarely seen. We have tried to distinguish them from the active neuritis cases; and in examining these cases the classification has been borne out by the neurological and physical examination. Many discs partake of both an active inflammation, with the D. P. type of disc. Many are border line. During the examination the neurologist would hazard his opinion as to the variety of discs the case would have and the ophthalmologist the variety of cases; whether "D. P." type or active syphilis, or the near-tabetic. We found the judgment on both sides was in the great majority of cases correct. We speak of the "D. P." type of discs; we find this classification covers the feeble-minded,

imbeciles and idiots as well, and as all these cases are similar, merely a matter of degree of deterioration, they also blend one into the other and all classes have their "border lines."

The pathology of these cases has been corroborated by Dr. Myrtelle Canavan,¹ pathologist to the Boston State Hospital for the Insane, in her report of 58 cases of optic nerves examined, unselected. Forty had definite optic neuritis, and 18 of the 40 showed evidence of syphilis.

Dr. Clinton T. Cooke,² of Seattle, Washington, also made an ophthalmoscopic examination of 150 dementia præcox and manic-depressives, a tabulation of which he presented at the Portland meeting of the Pacific Coast Oto-Ophthalmological Society in June, 1916.

His findings are a corroboration of the findings of Tyson and Clarke quoted before, and of Dr. Thomas's statement. Dr. Canavan's pathological findings certainly put the finishing word to it.

PUPILS.				
SIZE.				
Normal.	Large.	Small.	Irregular.	Unequal.
227	27	13	13	10
REACTION.				
Normal.	Sluggish.	Absent.	Hippus or "Clonus".	Argyll Robertson.
189	72	5	4	3
EXCAVATION OR "P. O."				
Present (in any degree).		Absent.	Present in one, absent in other.	
103		159	38	
OPTIC DISCS.				
D. P. Type.	Neuritis.	Negative.	Atrophic Appearance.	Papilloedema.
123	97	59	10	5
Nystagmus noted in three.		Strabismus noted in three.		

F. PSYCHOLOGICAL DATA.

Under this caption we attempt to give the result of our observations extending over a period of 18 months. In other words, an attempt will be made to give you the same perspective as we have.

Looking back over our work of a year and a half, it is with no little difficulty that we set down our impressions of the social prob-

lem of prostitution. The work extending over such a period of time, and visiting such a large number of houses, tended to wipe out all preconceived theories and notions about the subject. All these theories and notions in the popular mind arise from lack of knowledge and the hysterical and misleading statements sent out by well-meaning, but misinformed, enthusiasts, who, by edict, would make the world over in a night.

It particularly strikes us that everywhere the laws are directed against the woman. Granted that the women are unchaste, fallen, and undesirable in a community; it is the men who seek them out, and it is easily 20 to 1, as not only our figures, but the statistics of others, demonstrate. Also that at least one-half of the visitors are married men.

If the problem of prostitution is to be attacked, something more will have to be done than chasing or shooing these unfortunates from pillar to post.

If you could have observed those streets and alleys by night as we did and have seen the army of men trailing up and down, in and out, like at a fair, it would illuminate the subject a little more.

The observations made inside the houses would also change your notions. Pitiable, yes, pitiable; for usually it meant simply young girls from homes of no training, of no innate strength of character, of little or no education, giving history of poor, often extremely bad, environmental conditions, of poor heredity, bad associates, the majority testing subnormal, many defective and feeble-minded and manifesting few or no special abilities, and many disabilities.

The especially educated, gifted, witty and sparkling ones, it was not our fortune to meet. We read of them, but seldom are they seen in houses of prostitution. They may be "kept women," and we hear of them in divorce and probate courts. We found no places where girls were kept against their wills, as most of the houses we visited were the so-called "cribs," nobody living in them except the "madame," the girls all having lodgings elsewhere and coming to work at certain hours and working under assumed names.

The term "white slave" is a very flexible one, and in the public mind is synonymous with all that is associated with prostitution. Certainly, in San Francisco, the police have kept pandering to a minimum, and unwilling detention in a house of prostitution is

unknown, certainly, as a practice. No woman ever enters this life at the point of a pistol. The prostitute's life is usually easily deciphered, and we find the following picture the usual one: "Sexual experience" (sometimes numerous) preceding the actual "turning out"; "the decision to offer her body to indiscriminate intercourse with men for hire"; "the gratification of her ambition"; "the entering a house of prostitution and becoming a part of the 'system.'" These women are the ones who in the shuffle of life dropped into their respective places as the various-sized oranges or pieces of crushed rock dropped through the apertures in the grader into their respective receptacles.

Their equipment is not sufficient to enable them to cope with any environment in a normal manner.

This is not alone a sociological problem but a psychological problem as well, and the studies of causes should begin in the cradle—the individual, male and female, should be studied, and those having special abilities should have them developed; those early manifesting bad sex habits should be guarded and if defective should become institutional cases.

A plea, then, for closer studies of our school children, an establishment by either public or private funds, of psychopathic laboratories for this work.

CONCLUSIONS.

Realizing that in our present state of educational and social development that a demand exists for prostitutes and that so long as the demand lasts, the supply will somehow be obtained, education, and proper early segregation of socially unfit of both sexes will be the ultimate solution if it can be called such. At present a vicious circle exists.

"As an economic, sociologic, eugenic, and medical problem, syphilis is occupying considerable attention at the present time. The source from which most of the syphilis originates is the house of prostitution. It is a place where syphilis is concentrated." It injures the germ plasm and offspring are often defective, again supplying the individuals who in turn become mere carriers for the spirochæta.

The facts as presented in this paper can be correlated into the following:

To our minds they demonstrate the close unity between psychiatry and sociology, between venereal diseases and defective offspring; also that associated with syphilis we may have many perverted neurological symptoms hitherto overlooked; also that education, eliminating prudery, is essential to eliminate this evil. At the same time prophylactic measures should be more energetically taught to prevent spread of venereal diseases.

OCCUPATION OF FATHERS.

Occupation.	Number.	Occupation.	Number.
Shoe manufacturer	1	Brewer	2
Stone mason	5	Policeman	2
Grocer	3	Architect	1
R. R. employee	7	Clergyman	2
Potter	1	Scavenger	1
Blacksmith	5	Miller	2
Civil engineer	2	Peddler	1
Dairyman	1	Bank cashier	1
Salesman	1	Gov. clerk	1
Carpenter	15	Bookbinder	1
Mechanic	2	Furrier	1
Painter	3	Chef	1
Merchant	6	Broker	1
Baker	1	Piano maker	1
Sailor	2	Tent-maker	1
Clerk	8	Bricklayer	1
Jeweler	2	Reporter	1
Gardener	1	Farmer	48
Teamster	2	Saloon-keeper	13
Factory worker	1	Innkeeper	5
Moulder	1	Barber	4
Bank clerk	1	Contractor	10
Artificial flower maker	1	Grain tester	1
Maker	1	Engineer (steam)	6
Draughtsman	1	Miner	6
Nurseryman	3	Tailor	10
Electrician	3	Attorney	2
Plumber	3	Physician	7
Army	4	Musician	6
Lumberman	3	Unknown	140
Tanner	1	Teacher	2
Shoemaker	3	Printer	1
Laborer	7		

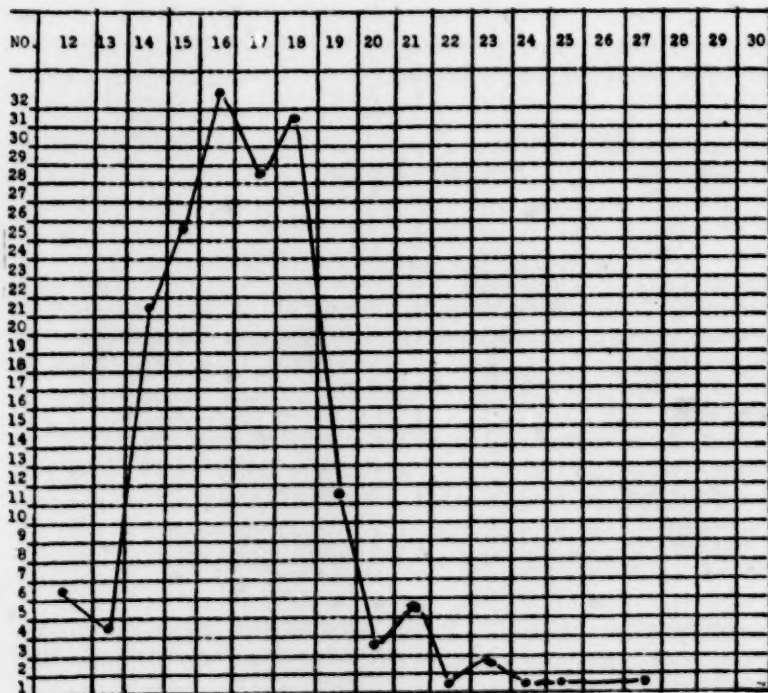
AGES.

Ages.	Number.	Ages.	Number.	Ages.	Number
21	4	29	20	36	3
22	22	30	15	37	2
23	38	31	19	38	2
24	37	32	4	41	1
25	29	33	9	44	1
26	31	34	10	45	1
27	24	35	3	47	1
28	16				

AGES AT WHICH FIRST SEXUAL EXPERIENCE OCCURRED.

Ages....	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
No.....	6	4	21	25	32	28	31	11	3	5	1	2	1	1	0	1

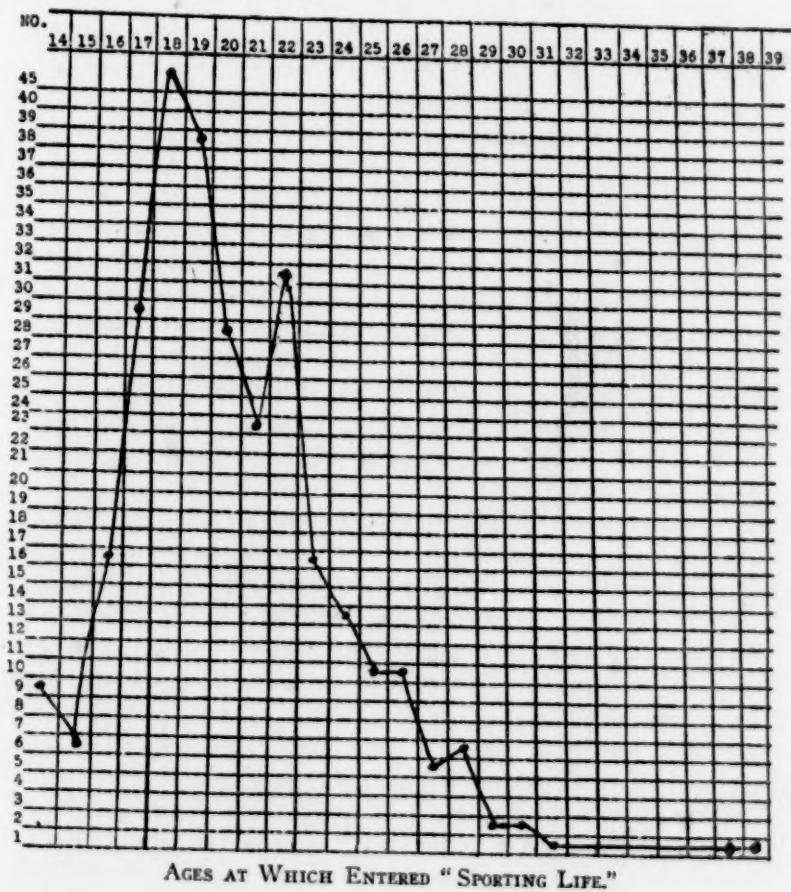
178 gave ages. Others either refused or did not remember.



AGES AT WHICH FIRST SEXUAL EXPERIENCE OCCURRED.

AGES AT WHICH ENTERED "SPORTING LIFE".

Ages.....	14	15	16	17	18	19	20	21	22	23	24	25	26
No.....	39	6	16	29	45	38	28	23	31	16	13	10	10
Ages.....	27	28	29	30	31	32	33	34	35	36	37	38	39
No.....	5	6	2	2	1	0	0	0	0	0	0	0	1



REFERENCES.

1. Wassermann examinations were made in The Oakland Laboratory, Mabel Little, laboratory technician.
2. Histological Study of the Optic Nerves in a Random Series of Insane Hospital Cases—Myrtelle Canavan. *Journal of Nervous and Mental Diseases*, March, 1916.
3. The Appearance of the Fundus Oculi in General Paresis, Manic-Depressive Insanity and Dementia Præcox—Clinton T. Cooke, Seattle. *Transactions of the Pacific Coast Oto-Ophthalmological Society*, June, 1916.
4. W. W. Graves, St. Louis, "Scaphoid Scapulæ." *Med. Record*, May 21, 1910.

THE SO-CALLED LUCID INTERVAL IN MANIC-
DEPRESSIVE PSYCHOSES. ITS MEDICO-
LEGAL VALUE.*

By ALFRED GORDON, M. D., OF PHILADELPHIA, PA.

One of the most important chapters in the history of manic-depressive psychosis is the state of mentality during the intervallary periods, when the individual between isolated outbreaks of excitement or depression is apparently lucid or may give a strong impression of a normal mental attitude. This particular phase of the patient's pathological life invites serious reflexion which must be based upon accurate observation, as it involves grave medico-legal problems. First of all one will not infrequently be confronted with this question: should an individual who has had two or several periods of depression or exaltation be left at large and not be confined during the phase of the so-called lucidity? In the next place, is such an individual, if not committed, to be considered mentally competent to take care of his affairs? The two queries lead us logically to the consideration and proper appreciation of the mental status of the individual during the intervals free from the depressive or manic attacks.

There cannot be any doubt as to our attitude towards the diseased individual during the depressive or manic states. The state of passivity, of absence of initiative, of inertia, of self-negligence during the period of depression naturally renders the patient dangerous to himself, and because of these special characteristics he can be easily influenced, so that his own property and belongings may be seriously compromised. During the maniacal phase there is a general tendency to an overactivity in every direction, to extravagance which may naturally lead to a deplorable initiative in various undesirable enterprises with highly prejudicial consequences. Every one of us is familiar with instances in which fortunes have been dissipated and families left destitute by maniacal individuals whose maniacal phase had not been sufficiently conspicuous in the gross sense of the term and recom-

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mentations for commitment had been ignored by both court and relatives.

Not infrequently we meet with patients who have been suffering from mild unrecognizable attacks of either depression or excitement, who at first glance do not appear to be insane, who speak quite reasonably on many subjects, whose claims appear to be legitimate and who at the same time are suffering from a psychosis in which precisely because of the abundance of ideas and because of the overflow of intelligence in their manic phase they are capable to think, feel and act in a manner which may be prejudicial to themselves and to all concerned.

In considering intervallary periods, it is to be remembered that there are cases in which they are long (from months to years), or very brief (from hours to days), or else there are cases without intervals. I have on my records several cases in whom the alternating phases lasted but 24 hours without a trace of an intermediary period. The chief problem to solve in my present attempt is to determine whether there exists a genuine lucid interval and what should be our attitude during that interval.

The opinions of authors on this subject are divided. Some competent observers believe that there may be a complete return to normal mentality in the intervals. Others equally competent hold the view that if there is a mental integrity it can be only at the beginning of the psychosis after the first or second attack and that it disappears after multiple attacks. There are still others who deny all possibility of lucidity between individual phases of depression and exaltation. Such a diversity of opinions is certainly most striking. Is it due to the fact that the majority of patients who fell under observation of the first group of psychiatrists happened to have unusually long remissions and those of the second group were of a less favorable character, finally, those of the third group of observers presented the most unfavorable class of patients? If such is the case, and all the evidences point in that direction, we must admit that there must be a great variety in the duration and character of the remissions, also in the regularity of their occurrence. While an outbreak of an individual phase of the psychosis may occur at any time, nevertheless there are cases in which both phases or one individual phase of the psychosis make their appearance with a remarkable regularity as

far as period of time is concerned. A young girl, for example, during my observation of six years had every spring and fall attacks of depression which would last six weeks. Another patient, married, had, to my knowledge, during a period of 12 years regular attacks of marked depression for three weeks, immediately alternating with a mild exaltation for six weeks every year, commencing in December. If a regularity in the onset and in the duration of attacks is observed in one group of cases, in the majority of instances such a regularity does not exist and any individual affected with manic-depressive psychosis is at all times, and always threatened with an outbreak or, to say more precisely, he is in a constant state of morbidity. It seems logical to contend that no matter how satisfactory the state of mental health may be during the intervallary periods, the disease nevertheless exists at that time in a state of potentiality and may be reproduced at any moment without apparent cause. This conclusion naturally forces itself upon us when we consider that irrespective of the form and the intensity of the disease, the succession of the phases of depression and exaltation is always identical in every possible case. The affection, consequently, persists and never varies during months and years. By reason of these invariable recurrences can we therefore pretend that if there are times when possession of mental faculties apparently returns, that this possession is so genuine, so full and so absolute that the individual could be considered free from the original disease?

In the following two histories, I find illustrations of what may constitute normal mentality during the intervallary periods of manic-depressive psychosis. The apparently lucid intervals were so long, between two and three years, that the patients were considered by many as possessing a normal mentality.

CASE I.—C. Y., physician, aged 45, had always been nervous and highly irritable. Because of his disturbing temperament his domestic life was most unhappy so that a separation from his wife was inevitable. Two of his three children were mentally defective. As a man of intelligence, he fully realized his misfortunes and his inability of adapting himself to circumstances. He became depressed and found himself incapable to attend to his duties and to continue his work. The depression became gradually deeper and he isolated himself. Indifference to surroundings and to himself, apathy, finally total passivity to all absorbing and interesting events—this was the condition of my patient which lasted seven weeks.

Gradually the depression subsided. He soon became talkative, began to ask questions and to take an interest in conversations of others. Then he began to complain and find fault with his attendant. When once the latter could not for good reasons bring in a blanket at the patient's instant request he struck him over the head. At another time he threw a plate with hot soup at the maid, because she brought in the tray a few minutes later than he expected. He soon became very talkative, restless, agitated. He refused to be accompanied by an attendant. He then visited several publishing houses offering to write books on sociological topics. He made acquaintances with the greatest ease, irrespective of the character of the individuals. To strangers and to every one whom he happened to meet he narrated his dissatisfaction with his family and that he was not sufficiently appreciated by all. He could, he said, make considerable money from various schemes—and make everybody happy. He did not worry because "he would arrive at great prominence." While dining in a restaurant he threw a plate at a guest because he overheard him making a remark about Colonel Roosevelt. He was arrested. His condition was recognized and he was legally committed to a private institution for the insane. For three months he was struggling to regain his liberty by sending communications broadcast to all men prominent in public life. He was in a constant state of agitation, and could not sleep. Gradually all these symptoms commenced to subside and within four weeks the state of excitement had totally disappeared. He remained in the institution another two months and was discharged, after persistent requests of his son, but against my advice.

For a period of two years he remained at liberty and during that time I saw him every two or three months. This period of freedom from the phases of depression and exaltation was most interesting and instructive as it throws some light on the so-called "lucid interval." The patient appeared calm and composed. He spoke on the events of the day with an apparent perfect knowledge of all happenings, domestic, national and international. He often referred to his effort to regain by reading what he missed during his confinement in the sanitarium. At each examination he mentioned with regret the loss of his former practice of medicine which was very remunerative. He led a very regular life. As he was very fond of music, he frequently went to hear recitals and operas. He did not miss public lectures on general topics with the object, he said, "of making up for the lost time while he was ill." As a man of good general education, he frequented libraries and read considerably. He renewed his former acquaintances and everyone considered him perfectly normal. He was apparently contented and satisfied with his "regenerated life," as he called it.

To all appearances therefore, the man could be considered as perfectly able to control his own affairs, and therefore, legally as possessing full civil capacity. In the midst of his apparent lucidity he planned to resume his practice of medicine. But the judgment exhibited in this particular respect was decidedly deficient. After having been for a number of years

in general practice with the usual occasional work in minor surgery he now conceived a plan to resume practice and commence at once with major surgery. He would, he said, send out notices to a number of physicians, former friends, and others, informing them of his new intentions and asking them to refer cases to him. When reminded by me of his utter unpreparedness for such a work, and of the utter moral wrong to undertake operative procedures on a human being, without years of special preparation, my patient found my remarks somewhat offensive to him, and during a second conversation expressed to me his indignation at my interference. Besides, the impracticability in expecting physicians to refer important work to him he could not see. He kept on persisting in demonstrating to me his proper attitude in the matter. My firm position in preventing him from resuming practice in any form, whatsoever, he commenced to view with a certain degree of incredulity and even of hostility. As he was in need of money, and his brother refused it to him, because of my attitude in the matter, he then abandoned temporarily the idea of practice of medicine and turned his attention to literary work. While he never before wrote anything for publication, he has now conceived an idea of writing a treatise on the psychology of sex. Neither by his general or special education, nor by his make-up (I knew him quite intimately for a number of years) was he fit to write on psychological subjects. He informed me of his work some time after he commenced it. He spent many hours in libraries which proved to be detrimental to his physical health. At once I discouraged this undertaking, pointing out the man's unfitness for a work of this character. He felt disconcerted at my announcement, but did not express any special indignation this time. He followed my advice, gave up the work, not because he was in accord with my views, but because, as he said, he did not care to have trouble with his brother who always followed my advice. One by one, he took up other plans, for which he was not prepared. One of such plans was particularly striking, namely, he wished to do banking. He would interest some people in it and become himself president of the institution. As he himself had no money whatever, and as he knew nothing of financiering, his proposition and the persistence in asserting his ability to lead the business to a successful end was most astonishing. Yet the manner of speaking and the general behavior could not impress any one with anything but a normal mentality. Soon he again commenced to speak of resuming the practice of medicine in the same way as he spoke before. At the time of writing these notes, over two years have elapsed since he had his manic-depressive outbreak. All this period of time he has been considered by every one as perfectly sound, as indeed his mannerism and his general information are those of normal individuals. If, however, we consider seriously the above-mentioned data, we cannot help but admit that there is a fundamental disturbance in judgment, and in the sense of obligations. Could or would a man with a normal mentality permit himself to practice operative surgery of the major type without the least preparation for it? Could or would such a man expect any one to send him cases for that purpose, knowing

well that his fellow physicians were familiar with the character of work he was doing before his illness? Would a normal individual conceive an idea to become suddenly a president of a bank, without any knowledge of financiering; or would he think of writing and publishing a book on psychology and sell it successfully, just on the mere wish of doing it? It was evident that my patient was essentially ignorant of his own inaptitude. He always wondered at the reasons of my persistent opposition to his undertaking. He was certain and convinced of his ability of carrying through his plans. Moreover, in his arguments against my advice, he maintained the attitude of unquestionable intellectual and moral superiority. When it was pointed out to him that he would commit a great moral wrong in operating, if permitted, on human beings, without having ever performed an operation and without having had the proper training, he could not see the solemnity of such an admonition on my part. He persisted in having full confidence in himself and would not admit that he could commit an unreasonable act. There was a manifest break in the man's mental equilibrium and in his feeling. While prior to his psychosis he was attached to his brother and appreciated the latter's generous spirit, now these sentiments underwent a radical change. His brother's illness did not affect him in the least. His son's accident, which was followed by a fracture of the femur did not disturb him much. There was also noticeable in him a tendency to presenting facts in an inaccurate manner and in speaking about others in a most uncharitable manner, while prior to his illness he was considered as the most deliberate and honorable man.

CASE II.—Miss M. C., age 29, teacher of languages, had a mild maniacal outbreak of three weeks' duration. Six months later she had another attack, but of a somewhat more pronounced type which lasted seven weeks. This was followed by a remission in which she still is, and which has been in existence 27 months. According to the information obtained from her mother the patient had one attack of depression of eight weeks' duration, one year prior to the first maniacal attack.

The patient has been under my observation since the first maniacal phase. During the first interval of six months' duration and during the 27 months since the last attack, the patient's mental condition was identical. To all appearances the patient was free from that exaltation which was characteristic of the individual outbreaks. There was no tendency to quarrel, no restlessness, no talkativeness, no desire to attack—all symptoms which she exhibited during the attacks. She was calm and composed, without a trace of depression. She attended meetings of an intellectual character. Being a musician she attended concerts very frequently. Questioned, she always replied that she was contented and quite happy. She did not complain. Her former friends have all commenced calling on her and inviting her to various affairs. She resumed her former life with the exception of teaching. She was very anxious to begin the teaching, but upon my advice, her mother did not permit it. My reason for giving such an advice was the conviction that her mental condition did not appear to

me perfectly normal, although her mother and all her friends considered her totally restored. First of all, she became very egotistic, which trait was not conspicuous in her character prior to her illness: she was considered extremely good-natured and she was always ready and prompt in rendering a service. She was well known for her unlimited affection for her mother, but now she became indifferent to her pains from which she suffered because of her chronic rheumatism. At times she even appeared callous; once in bed she would refuse to get up to make her mother comfortable. She was easily irritated. Contrary to her good naturedness to every one, for which she was well known, she became ill-natured, found fault in others, attacked the morality of her friends, and was careless in making statements. To deceive she did not consider as a wrong. What was particularly noticeable is an unusual optimism in all thoughts and acts. She fostered the idea of being capable to undertake almost anything she wished and that she could handle most difficult problems in every sphere of life. She invested some money in two different enterprises without her mother's knowledge. In spite of her high opinion of her own abilities she made these investments without the least investigation as to the nature of the enterprise and to the character of the individuals who solicited the investments. In spite of the fact that in every-day conversations, and for all practical purposes the patient had been considered by all as being mentally sound, in spite of the fact that at no time during 27 months had the patient presented any evidence of her former manic-depressive psychosis, nevertheless, in view of the above characteristics concerning her power of judgment, her sense of morality, her affectivity, her excessive confidence in herself, her change of attitude towards her friends—for all these reasons my patient's mental condition appeared to me morbid.

Two cases, among others described here, illustrate with sufficient evidence, I believe, the value of the so-called "lucid period" in the life of an individual with a manic-depressive psychosis. It proves the fact that at least in some cases the lucidity may be only apparent, and that where a superficial judgment will fail to reveal a mental disorder, a careful analysis associated with a prolonged observation of the patient's entire life and of every act in his daily life will unearth an entirely different picture of his mentality. It will then show that while the characteristic elements of the psychosis are no more in action, the disease nevertheless produces such a disturbance in the patient's mode of thinking, of reflecting, of co-ordinating ideas, in the manner of viewing moral obligations towards others, etc., that he cannot be considered normal. The two cases related here are highly instructive from this standpoint and they demonstrate with evidence that no matter how intelligent and reasonable the patients may appear, one may

commit a gross error if a more detailed and frequently repeated investigation is not made. It may happen that their marked intelligence itself is an evidence of the disease. Appearances are fallacious and they alone cannot decide an opinion. Insanity must be judged not from what is left of reason, but from what is wanting.

If it is true that there are cases in which serious changes of mentality are present in the intervals between individual outbreaks of depression or excitement, there are also cases in which these changes are less pronounced, cases in which the changes are at a minimum, cases with but one or two outbreaks during a period of many years in which the patients eventually made a total recovery, cases in which the intervallary periods are either very brief or very long. As to the number of individual attacks of the psychosis, an equally great variety is observed. There are cases in which but one or two attacks occur during a period of many years; cases in which one or several attacks occur yearly and for many years. One of my patients who is now 52 years of age has had, since the age of 20, every year or every two years one or two attacks of depression lasting from one to four months and rapidly followed by a mild manic condition of shorter duration. Between these two extreme limits of frequency, we observe variations in the greater or lesser number of outbreaks. Have the number and the frequency of the latter any bearing upon the duration of the disease? Has the duration of the intervallary period any bearing upon the patient's mental condition during that time?

It must be generally conceded that brief intervallary periods are but intermissions characterized by a greater or lesser amelioration of the symptoms of the psychosis and not by a return to normal. On the other hand prolonged periods of so-called lucidity are not an absolute guarantee of recovery, as the two above described cases attest it, although generally speaking, intervallary periods of many months' duration present *à priori* a greater chance and greater possibilities for recuperation and restoration of normal mental faculties. For the same reason the greater or lesser duration of the individual's phases of the psychosis has presumably a corresponding influence on the intensity of the mental disorder during and after the outbreak. It appears therefore logical that for a proper estimate of the mental status of a given

individual during the lucid periods consideration should be given to several elements, namely: the frequency of occurrences of the psychosis, the duration of the individual phases and duration of the intervallary periods. At the same time observation shows that neither of these elements possesses an absolute diagnostic value and that in any given case no absolute prediction with any great amount of certainty can be formulated in advance. There are cases with very few outbreaks of the psychosis and still a profound mental disorder may develop. There are cases with a greater number of individual attacks and yet the mentality in the intervals is not greatly affected. There are also cases similar to those described above in which in spite of prolonged intervallary periods the mentality may be fundamentally involved. It appears therefore that no absolute rule could possibly be established and each given case must be individually interpreted and an opinion as to the mental status must be based mostly upon the results of repeated examinations of the patient during the "lucid" interval. The degree of intensity of mental damage or else the possibility of complete restoration to normal depend, besides the above mentioned factors during and between the individual attacks of the psychosis under discussion also and apparently mostly upon the affected individual's personal or hereditary mental qualification, inherent so to speak. Indeed the natural mental attitude of the individual which constitutes an integral and an inseparable part of his entire makeup seems to play an enormous rôle in the failure of adjustment, hence in the causation of the psychosis; also it has, I believe, its greatest influence on the mental status after the manifestations of the individual phases of the psychosis have subsided or disappeared. The attacks of mania or of depression are *agents provocateurs* for deeper disturbances in the mentality which had been since birth constitutionally below normal. The infinite diversity in the degree of the mental deviation (constitutionally speaking) explains the great variability in the mental status of individuals who had previously suffered from outbreaks of the psychosis.

This observation has a considerable bearing upon the medico-legal side of the problem of "lucid intervals" in manic-depressive insanity. Two questions present themselves for consideration in this respect: One is that of commitment, the other is that of recognition or non-recognition of the individual's civil capacity.

In view of the variations in the mental status of individuals presenting the so-called lucid intervals in manic-depressive psychosis the question of commitment naturally cannot be solved in a uniform manner. A mental condition such as seen in the two cases described above in spite of the fundamental changes does not require commitment, because its various manifestations are not of an order to create undesirable or dangerous conditions to others. As to a possible danger to themselves, they require protection and surveillance as the defective judgment and defective moral conception render them an easy prey for undue influences from any source. Such individuals can be easily controlled by their families. In other cases, especially when the so-called lucid periods are very brief, we observe practically a continuation of the manifestations of the psychosis itself, but in a greatly attenuated form. If commitment is not absolutely indispensable in every case, it is nevertheless indicated in some cases when the patients are susceptible to commit antisocial acts. Finally, there are instances in which the outbreaks of the psychosis are so frequent and the apparently lucid intervals are so brief that the patient is practically under a constant and continuous influence of the psychosis so that the intervallary period could be totally ignored. Such patients are a constant menace to society and to themselves and commitment is indicated and is the only issue.

If in a certain group of cases commitment is not indicated because of the presence of only very few morbid manifestations or because of absence of evident mental disturbances all patients during the so-called lucid intervals should nevertheless be kept under observation. As it was shown on the foregoing pages, in spite of an apparent lucidity there may be such essential and fundamental deviations in the power of judgment, in the conception of obligations, of duty and in the general activity that if the patient is abandoned to himself he may gravely compromise his own material situation and that of his family. Such an individual is not fit to care for his affairs, he may at any moment make an extravagant or unnecessary usage of his small material resources. Not infrequently we meet with cases in which the apparent lucidity is so deceiving to the family and to the judicial officer that the patient's activity is not interfered with and his family is left too late without resources. One patient who is still under my care was

permitted and even advised by the family physician to get married during a lucid interval, with the result that he wasted the largest part of his wife's fortune on various, most unwise enterprises. If commitment to an institution is not always indicated or advisable, we nevertheless must not forget the fact that in the largest majority of instances during the so-called lucid intervals, the patient's civil capacity is questionable. Even in the most prolonged and most favorable intervallary periods patients who have had outbreaks of manic-depressive psychosis should be considered as possessing a mentality which first of all is predisposed to undergo profound changes at any unexpected period of time. In every instance they should be provided with administrators or with counsel who should be given full power of a guardian in order to protect them from outside influences and to prevent them from carrying on all new undertakings without a thorough investigation. No illusion should be entertained with regard to the value of pretended lucidity which in the majority of cases is problematical. Each case must be studied individually and due appreciation be given to every manifestation no matter how slight it may appear. It should be invariably borne in mind that an individual with a previous history of attacks of manic-depressive psychosis possesses an underlying morbidity upon which the psychosis is grafted. There is a fundamental disturbance of equilibrium in the mental and moral spheres. Such an individual is of unstable and irritable disposition; he is suspicious, quarrelsome, egotistic, penurious, defiant—all peculiarities which may lead to impulsive acts of a regrettable or criminal nature. These characteristics cannot naturally disappear during a so-called lucid interval no matter how protracted its duration may be. In forming an opinion therefore one must rely on the entire life history of the individual, on the mental condition during the intervallary period and on that before the psychosis developed.

DISCUSSION.

DR. HILL, Iowa.—Mr. President, I might state a case which I think is remarkable. It is that of a German, a tailor by trade, who was a successful man. He came to this country at the age of 20, but when he was 25 he became insane, a manic case. After remaining in a State Hospital for seven months he made a complete recovery, afterward he got married, had three children, all of whom are still alive. His wife died

last August. He has had nine attacks, all manic, none of them depressive; and on an average he has recovered from each attack after five months treatment; so that in 45 years he has been nine times in an institution for treatment where he was obliged to go on account of disorderly conduct; but during the 45 years of his insanity he has acquired \$100,000 in real estate and other property. His wife had been his natural guardian, and at times she was his legal guardian when he was not in an institution; yet he was considered sound in mind after his attacks, and carried on his business successfully. His wife died at the beginning of an attack last summer and no one else felt like interfering. The result was that one month after his wife died he married the second time, and it was necessary to place him under treatment again. He has made a good recovery from the last attack; but now, being 68 years old, the guardian of his property has been made permanent, and I have been made the permanent guardian of his person. He is in his right mind, of normal senility with some mental impairment.

Notes and Comment.

REPORT OF THE HOSPITAL DEVELOPMENT COMMISSION OF THE STATE OF NEW YORK.—The New York State Legislature by Chapter 238 of the Laws of 1917 created a Hospital Development Commission. In February, 1918, it transmitted to the legislature a report which should be in the hands of and read by everyone interested in hospital development and in the care of the insane.

The commission acted under certain specific directions, outlined in the law under which it was created, and these directions appear to have been most comprehensive. In addition to the specific duties of the Development Commission outlined in the law it authorizes the State Hospital Commission to enter into contract or contracts for the construction and equipment of new buildings on the Marcy site in connection with the Utica State Hospital at a cost not exceeding \$1,250,000. The Hospital Development Commission is to determine the character of development and buildings first to be constructed on this site. The new buildings when erected are to be known as the Utica State Hospital—Marcy division. About \$300,000 is appropriated for commencing the work. Under the same provisions as to the sanction of the Hospital Development Commission of plans and purposes of the building new structures are authorized at the Middletown, N. Y., State Hospital, to be contracted for by the State Hospital Commission. The sum to be expended is fixed at \$369,000 and the sum of \$100,000 is appropriated to commence the work.

We take the following from the report of the Hospital Development Commission:

The Hospital Development Commission, as created by chapter 238 of the Laws of 1917, would report as follows:

The commission organized by the election of Henry M. Sage as chairman, H. Edmund Machold as vice-chairman, and Lewis F. Pilcher as secretary.

In order to facilitate its work sub-committees were named as follows: Medical, metropolitan district, mechanical plants, mortuaries, tuberculosis pavilions and care of the feeble-minded. Of these committees the medical and metropolitan district committees have reported to the commission. Their findings have been adopted and are made a part of this report. The

mortuary committee adopted a plan for an ideal mortuary in connection with state hospitals which was approved by the commission. The committee on tuberculosis pavilions performed a like service. The committee on mechanical plants employed an expert who has visited several of the heating and power plants and has studied the plans of all of them and has made preliminary recommendations to the commission which are now under consideration. The committee on care of the feeble-minded has also employed an expert and his findings are made a part of this report.

In accordance with law the commission has visited the 13 insane hospitals, the two hospitals for insane criminals, the four institutions for the feeble-minded and the epileptic institution at Sonyea, has inspected the new hospital site at Marcy and the possible site for new hospital accommodations at Creedmoor. It has also visited the psychopathic hospital at Boston, the feeble-minded institutions at Waverly and Wrentham, Massachusetts, and the new insane hospital at Whitby, Ontario, Canada.

As to the specific duties placed upon it by law the commission reports as follows:

"1. Examine each site of hospital development in the state, together with such other sites as the state now owns or which in the future may be developed for hospital purposes";

This duty has been performed by the commission.

"2. Make a complete investigation of the capacity of the present state hospital buildings";

This duty has also been performed and the list of the revised capacities as determined is appended.

"3. Consider future policy of the state for the care of the insane, and whether advisable to make it part custodial and part hospital";

This duty has been performed and the commission is unanimously of the opinion that it is not advisable to make the care of the insane part custodial and part hospital. The reasons for this decision are more fully set out in the report of the medical committee.

"4. Adopt a general plan of hospital development taking into consideration proximity to centers of population, transportation of supplies, patients and their relatives and friends, healthfulness, water supply and drainage facilities;

"5. Devise and adopt a plan to provide for the proper accommodation of the present surplus of patients, both in the civil hospitals and in the hospitals for the criminal insane the normal increase and a moderate surplusage of accommodations at its completion at the end of 10 years";

These two prescribed duties are really one. The commission very early realized that the problem of future hospital accommodation in the state could only be properly solved with the solution of the problem in the metropolitan district, where the over-crowding is infinitely the worst and the provisions for care of the insane are totally inadequate even at present. Unless something is done at once to relieve this situation it goes without saying that in 10 years the conditions will be absolutely intolerable. For the purpose of solving this problem the metropolitan district committee

was appointed. The report of that committee indicates a general plan of hospital development and the method to be adopted for the proper accommodation of the present surplus patients and the indicated surplus at the end of the 10-year period. With the metropolitan situation properly cared for, the situation in the rest of the state will very easily fall into line for proper development and adjustment.

"6. Estimate the probable cost of such plan in detail";

Under the present conditions where it is impossible to estimate the cost of labor and material, this duty cannot be performed by the commission and will be left for a later report.

"7. Consider each hospital site as an entity and submit a comprehensive plan for its development to a predetermined capacity, showing location, size and character of each building proposed";

Until the adoption of a general plan for hospital development and for the proper accommodation of all patients at the end of a 10-year period, it is impossible to make a final decision on this subdivision. This, as can be readily seen when the number, complexity and size of these institutions are taken into consideration, will require a great deal of time and labor, and an amount of technical assistance not now provided in the State Architect's and State Engineer's offices.

"8. Recommend to the legislature of each year on the date on which it convenes, an expenditure equal to one-tenth of the cost of the entire hospital plan when completed, stating in detail which buildings coming within such appropriation in cost are most immediately necessary for relieving congestion, for the proper care of patients and attendance, and for the symmetrical and efficient development of the entire plan."

For the reason that subdivision 6 cannot yet be complied with this subject must also wait for at least another year. However, in order that the work should not be delayed and that a start may be made in relieving the worst conditions, the commission has made recommendations for appropriations looking toward the development of the hospitals at Central Islip, Kings Park, Ward's Island and Brooklyn, and for the early establishment of a psychopathic hospital in New York City. With this work begun and carried as far during the coming fiscal year as war conditions will permit, we feel that the solution of the problem of the entire state will not be delayed.

The progress which this commission has made is really set forth in the reports of the medical and metropolitan district committees which have been adopted by the commission. In addition to this progress, however, certain progress has been made along other lines. The commission has located the new buildings authorized at Middletown, and has also directed the preparation of plans for these buildings. At the Marcy farm near Utica the commission has carefully examined the entire site, and has tentatively located the main building development, has provided for water and drainage facilities and has had preliminary sketches made for the development of this addition to the Utica State Hospital, in accordance with the principles laid down in the report of the medical committee as to the proper planning for state insane hospitals. At Creedmoor on Long Island,

the commission has carefully gone over the ground, has obtained reports from the State Health Department as to the adequacy of water and drainage facilities, and has had such sketches made in the State Architect's office as were necessary to prove the adaptability of this site for a new addition to the Brooklyn State Hospital.

Regarding the two hospitals for the criminal insane the commission recognizes the very unfortunate condition of over-crowding now existing particularly at Matteawan. As the problem of these two hospitals differs from the problem of the civil hospitals in that they are under different control we have not yet measured the wards and made a new certification of capacity. However, we fully realize our responsibility in this matter and it will receive the commission's prompt attention and ultimately be included in the general hospital plan.

* * * * *

The commission desires in this report to do justice to the management of the state institutions visited. It is a pity that every taxpayer in the state cannot visit these great institutions and see how his money is being expended. We believe that he would return from such an inspection with greater pride in his state, and with a lively sense of gratitude toward those who are spending their lives in an endeavor to improve the mental health and alleviate the sufferings of these helpless wards of the state. The defects in our system and in our individual institutions are not due either to our very efficient hospital commission, or to the management of the separate institutions. Rather are they due to an unawakened public conscience, a lack of knowledge both in the medical profession and in the state legislature, and a lack of system in our method of making appropriations. The insane and feeble-minded have no political value, little if any social value and few friends outside of their own family circles, who have already suffered the terrible calamity of having one or more such relatives. It is now known that feeble-mindedness, at least in adults, is incurable and insanity has been regarded as so nearly incurable that our plain duty in attempting to cure the incipient cases has been sadly neglected. And yet after visiting all these institutions, after talking with the men who are devoting their lives to the cure or alleviation of mental disease, this commission feels positive that a considerable percentage of these sufferers can be cured, that nearly all of them can be helped and that the responsibility for an apparent lack of results rests almost solely with those outside of the institutions. Every insane hospital in the state is spotlessly clean and well kept. In every hospital the facilities at hand are used to the utmost and everywhere the patients are treated with humanity, kindness and understanding. But it is impossible to accomplish cures where a condition of over-crowding exists to such an extent that new arrivals and chronics must be cared for in the same wards, where the day room space is filled with beds, where the dining rooms are in cellars which cannot be ventilated and where the employees with duties almost entirely disagreeable and often revolting, have sleeping rooms improperly lighted and ventilated over kitchens or

in the midst of bedlam. For such conditions neither the hospital commission nor the superintendents are in any way responsible. The responsibility rests with a so-called economy (unwise, inhumane and ignorant, for which a better name is parsimony) in needed appropriations. But even under these adverse conditions the superintendents have managed to keep up their courage and to a large extent their enthusiasm, and have done the best they could and have given the best that was in them to humanity and the state.

In addition the commission has made a most suggestive report upon the problem of the feeble-minded, and shows a lack of definite policy in the state regarding the care of these unfortunates and of cooperation between the different institutions of the state which certainly needs amendment. The report suggests the adoption of a definite policy and the creation of a board with the same powers over the feeble-minded as the State Hospital Commission has over the insane. Second: a state-wide commitment law is advised and third a census as complete as possible of all feeble-minded in the state, with all obtainable light on their family histories and environment.

Perhaps the most important single recommendation in the report of the commission is that contained in the recommendation of the sub-committee on the Metropolitan District, for the establishment in New York City, on the East River, as convenient as possible to the Manhattan State Hospital of a Psychopathic Hospital or Psychiatric Clinic for 200 beds with provision for future growth to which the laboratory features of the Psychiatric Institute on Ward's Island should be transferred. The sub-committee not only urges the prompt establishment of the Psychopathic Hospital in New York, which is, as appears in the extract we have taken from the report, endorsed by the commission and enumerated as one of the things to be taken up at once, but it suggests an inquiry as to the establishment of similar institutions in other thickly populated portions of the state.

To give a complete analysis of this report would consume more space and time than is at our disposal.

The sections we have quoted illustrate the broad and open-minded method of approach to the problems which confronted it, taken by the commission. It has vindicated the institutions of the state of New York from most of the allegations which have been brought against them and placed the hospital commission, the managers of the various state hospitals, the medical superin-

tendents and assistant physicians in a position before the people of the state which they have long deserved. The real cause for whatever defects which have existed is placed where it belongs, "with a so-called economy," better called "parsimony." Back of that is unfortunately the tendency on the part of legislators and sometimes governors to use the unfortunate wards of the state upon whom to practice this unwise economy to influence voters and obtain the support of the unthinking and the uninformed.

What a tribute is paid to the medical superintendents, who under adverse circumstances sometimes in the face of captious criticism from sources from which they might have expected encouragement and commendation have managed to keep up their courage and enthusiasm and "have done the best they could and have given the best that was in them to humanity and the state."

We trust that no future legislative body will lose sight of this report, that no future commission will be forced to write a less generous encomium of the medical superintendents of the future in New York.

SEVENTY-FOURTH ANNUAL MEETING OF THE AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION.—The seventy-fourth annual meeting of the association will be held in Chicago, Ill., at the Hotel LaSalle on June 4 to 7, inclusive.

The secretary has issued a preliminary program from which we take the following:

Organization.

Addresses of Welcome.

Response.

Reports: Committee of Arrangements, Council, Treasurer, Editor of AMERICAN JOURNAL OF INSANITY.

Appointment of Nominating Committee.

Address by President James V. Anglin, M. D., St. John, N. B.

"Psychoses of Unknown Etiology Arising in the Fifth and Sixth Decades."

E. T. Gibson, M. D., Middletown, Conn.

"Eskimo Types of Insanity." Henry Waldo Coe, M. D., Portland, Oregon.

"Psychoses in Mental Defects." Alfred Gordon, M. D., Philadelphia, Pa.

"What shall the attitude of Psychiatrists be towards Psycho-analysis in the treatment of Dementia Praecox." Michael Osnato, M. D., New York, N. Y.

"Interpretation of Nervous Diseases at the Physico-Chemical Level."

D. W. Roberts, M. D., Milwaukee, Wis.

"Pellagra at the Connecticut Hospital for the Insane." Wm. C. Sandy, M. D., Middletown, Conn.

- "Simulation." Wm. A. White, M. D., Washington, D. C.
- "Schizophrenic Traits." Phyllis Greenacre, M. D., Baltimore, Md.
- "Studies in Paraphrenia." A. A. Brill, M. D., New York, N. Y.
- "Treatment of Recurrent Depressions." L. Pierce Clark, M. D., New York, N. Y.
- "Review of the Symptomatic Psychoses." E. S. Brodsky, M. D., Bridgeport, Conn.
- "Accuracy of Psychopathic Hospital Diagnosis." Lawson G. Lowrey, M. D., Boston, Mass.
- "Efficiency Study of Accidents in State Hospital." Myrtelle M. Canavan, M. D., Boston, Mass.
- "Family Studies in Syphilis of the Nervous System." Harry C. Solomon, M. D., Boston, Mass.
- "American Classification of Mental Disease." Elmer E. Southard, M. D., Boston, Mass.
- "Different Anatomical Findings in Three Cases of Acute Infection Delirium." Samuel T. Orton, M. D., Philadelphia, Pa.
- "The Daily War Menu and Food Preparation for Patients." J. C. Mitchell, M. D., Brockville, Ontario.
- "The Work of the New York Hospital Development Commission." Charles W. Pilgrim, M. D., Albany, N. Y.
- "The Discouraging Conditions Surrounding our Attendant and Nursing Service." S. D. Wilgus, M. D., Rockford, Ill.
- "Hospital Organization and Management." Edward N. Brush, M. D., Baltimore, Md.
- "The Nursing Problem as Related to Psycho-pathology." Richard Dewey, M. D., Wauwatosa, Wis.
- Address. Ray Lyman Wilbur, M. D., U. S. Food Administration.
- "Psychiatric Aims in the Field of Criminology." Bernard Glueck, M. D., Ossining, N. Y.
- "Some Emotional Episodes among Psychopathic Delinquent Women." Edith R. Spaulding, M. D., Bedford Hills, N. Y.
- "Studies in Orthopsychics." Herman M. Adler, M. D., Chicago, Ill.
- "The Rehabilitation in the Community of Patients on Parole from the State Hospitals for the Insane." Samuel N. Clark, M. D., Chicago, Ill.
- "War Subjects covering the Medical Activities in Psychiatric Service." Lieut. Col. C. E. Doherty, M. D., Newmarket, Ontario.
- "The Importance of the History in Detecting the Psychopathic Recruit." A. W. Stearns, M. D., San Francisco, Cal.
- Other Papers have been promised by
- Henry A. Cotton, M. D., Trenton, N. J.
- C. K. Clark, M. D., Toronto, Canada.
- Albert M. Barrett, M. D., Ann Arbor, Mich.
- Edward Ryan, M. D., Kingston, Ontario.
- H. J. Sommer, M. D., Hollidaysburg, Pa.
- Major Robert M. Yerkes, Washington, D. C.
- Jau Don Ball, M. D., Oakland, Cal.
- H. Douglas Singer, M. D., Kankakee, Ill.

The definite program will be issued early in May in which the papers to be read on each day of the session will be listed in order, together with a brief abstract of each paper.

The program committee has been actively engaged in soliciting papers, and an attractive selection is presented. The committee of arrangements is also busily at work preparing for the general arrangements of the meeting, which notwithstanding the disturbing effects which the war has had on hospital administration throughout the country promises to be one of unusual interest.

HOSPITAL FARMS AND THE WAR.—“And he gave it for his opinion, that whoever could make two ears of corn, or two blades of grass, to grow upon a spot of ground where only one grew before, would deserve better of mankind, and do more essential service to his country, than the whole race of politicians put together.”

We commend the foregoing well-known but too often forgotten saying of Swift, to the thoughtful attention of every hospital board and every medical superintendent in the land. These are days and this is the hour which call for service. Many of us are anxiously looking about for some work which we can do in forwarding the great work undertaken by our government and our allies. Many are confronted by serious problems in hospital administration, resulting from the high price not only of food, but of all other commodities, as well as from more or less serious shortage of labor, and the steadily rising wage demanded for service of all kinds.

At the meeting of the Association in New York the matter of food production was brought forward at an extra session held after the adjournment of the last day's session. An inspiring address was delivered by the Assistant Secretary of Agriculture, but the whole subject was taken up too late to secure any definite action on the part of the association or to make any serious impression on its members.

At many institutions however a start had already been made to augment the production of food, and to increase in this manner the degree of self-support already attained. The address which is on the programme for the Chicago meeting, by a representative of the United States Food Administration will no doubt awaken much interest and contain suggestions of distinct value.

Now is the time however for active work. In some states the time has already gone by for early planting, but in others it is just at hand. The prospective needs of each institution can be readily determined and sufficient acreage, if available, should be put under cultivation to provide vegetables for use during the summer and a surplus for preservation for winter use. Many hospitals have done in the past more or less preserving of food products produced on the farm, and some have in the past year or two largely increased the amount of material preserved. In some places a surplus can be produced for which a ready sale can be had in local markets.

A word of warning is perhaps necessary to those who for the first time attempt to preserve material by canning or by other methods. The process of canning needs expert supervision and special apparatus and should not be undertaken without both, otherwise much valuable food will be lost and much disappointment entailed. For many food products the old methods of drying will be found simple and efficient, and if carefully done, the dried material can be kept in inexpensive receptacles, while both tin and glass for preserving purposes are at present expensive and difficult to obtain. In the food campaign the hospital dairy and the poultry yards should not be neglected. Careful inspection of the herd to weed out unhealthy animals and those whose milk-production falls below the standard as to quantity or quality, should be regularly followed up. The poultry yard will be found to afford congenial occupation for many patients and if intelligently supervised will bring satisfactory returns.

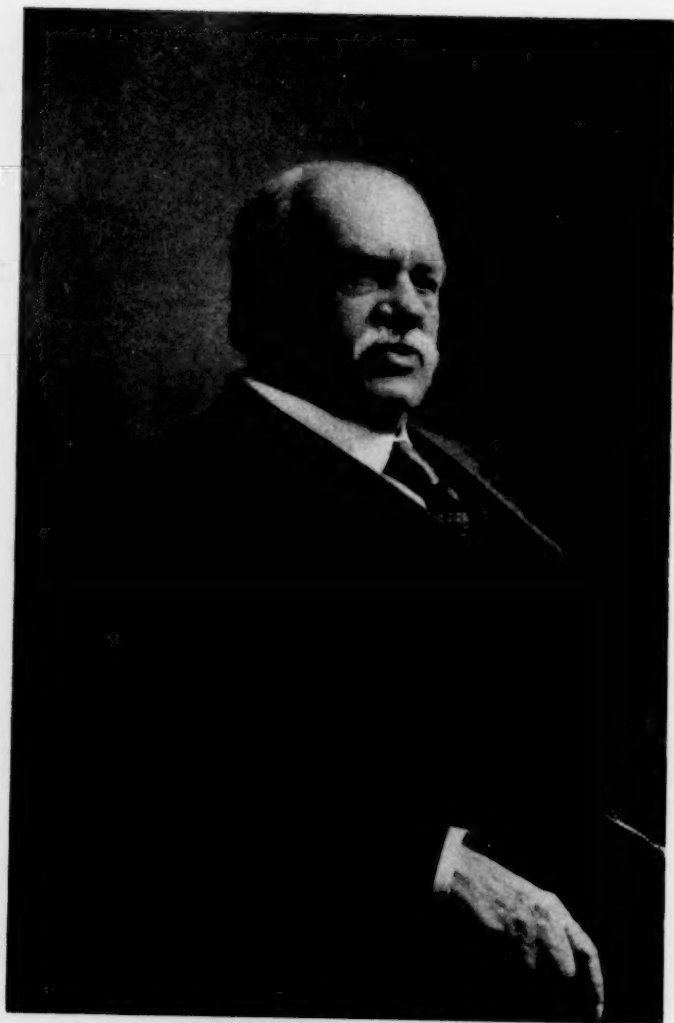
The hospital farms, particularly those connected with large public hospitals, should be models for the neighborhood. The large amount of labor available offers no excuse for untidy fields or weeds in neglected corners, and the hospital farmer, with proper cooperation from the medical staff and the nursing force, has at present a distinct advantage over his neighbors in the question of labor.

The report of the Hospital Development Commission to the N. Y. State Legislature to which we have referred elsewhere, says in reference to the farms of the State Hospitals: "At the present time the production of food is perhaps the most necessary single industry in the world. There is no reason why these farms should not be made an example to the rest of the state in scientific agri-

culture. The management of these farms by the law passed last winter was definitely placed in the Agricultural Department."

Here is an example for other states to follow. Many states have excellent departments of agriculture, some support agricultural colleges, and we have no doubt that arrangements could be made whereby experts could be sent to the hospital farms to direct planting and cultivation and, what is by no means less important, the preservation of surplus material for future use.

In 1915 the total value of farm and garden products of the N. Y. State Hospital was \$1,187,570.13, of which sum \$352,456 was profit, without charging interest on investment or the value of patients' labor. This last item would be practically off-set by the value of the labor to the patients, if a money value could be placed upon it. This shows a profit of nearly 12½ per cent on the investment of the state in institutional farms.



JOHN B. CHAPIN, M.D., LL.D.,
DIED JANUARY 17, 1918

Obituary.

JOHN B. CHAPIN, M. D., LL. D.

"Formed on the good old plan,
A true and brave and downright honest man.
Loathing pretence, he did with cheerful will
What others talked of, while their hands were still."

In the fullness of years, in quiet retirement after more than a half-century's active professional toil, amid scenes endeared to him by early years of association and work, surrounded by his children, having the admiration and love of the members of his profession and the affectionate gratitude of unnumbered persons to whom or to whose friends he had been physician, guide, counsellor and friend, Dr. Chapin died at his home in Canandaigua, N. Y., on January 17, 1918.

"Life's work well done,
Life's race well run,
Then comes rest."

And here one might pause. Dr. Chapin's whole life had been lived in the open, his record has been made in the history of his state in the annals of the hospitals with which he has been connected, in the printed page, but more clearly in the hearts of his friends, lay and professional, and nothing that we can here set down will augment his fame. The question however confronts us: "Because he needs no praise, wilt thou be dumb?" We may not so excuse silence much as we doubt our ability to adequately meet the task of writing something which shall in a small measure portray his career, and record our own affectionate regard, our profound sense of bereavement, as well as that of his professional friends and associates.

Dr. Chapin descends on the one side from Puritan ancestors, being in the eighth generation from Samuel Chapin, one of the founders of Springfield, Massachusetts, who is commemorated by St. Gaudens' beautiful statue in that city. Samuel Chapin, the son of John Chapin, was christened in the parish of Paignton, Devonshire, England, in 1598. He took the freeman's oath in Boston, June 2, 1641. He was a magistrate, a deacon in the church, and

much employed in public affairs. His descendants appear to have followed in his footsteps. Dr. Chapin's great-grandfather was a soldier in the colonial wars and in the War of the Revolution.

In some memoranda which Dr. Chapin has left he says, "There is a pride, perhaps pardonable, in tracing a lineage through a long line of ancestors who in their day revered God, stood for their principles as of more value than earthly riches or titles, who valued good citizenship and their simple lives."

Dr. Chapin's father, William, was the son of Nathan Chapin who removed from Springfield to Philadelphia and who married Elizabeth Castner, a descendant of a German Quaker, one of a company of immigrants who became identified with the Society of Friends of Gwynedd, Montgomery Co., Pennsylvania.

William Chapin was born in 1802. He was a man of artistic tastes and literary ability, and acquired a practical knowledge of the art of steel engraving which he applied to the production and publication of maps in New York City. He was also a contributor to the periodical press.

He early became interested in the blind and in 1840 became the superintendent of the Ohio Institution for the Blind at Columbus, Ohio. The education of the blind became his life work and some years afterward, during his son John's first year in college, he was called to the principalship of the Pennsylvania Institution for the Instruction of the Blind, in Philadelphia, where he remained until compelled to relinquish the duties of the position by the infirmities of age.

Dr. Chapin's pardonable pride in his long line of ancestors to which we have referred was not based alone on the records of the paternal side. His mother was Elizabeth H. Bassett, daughter of Rev. John Bassett, D. D., a graduate of Columbia College, the recipient of honorary degrees from Williams College, Yale College and Columbia University; minister of the Reformed Churches at Albany, N. Y., and at Bushwick, Long Island, N. Y., and Kingston, N. Y. The Rev. John Bassett's ancestors were Harmen Thomas Hun, born in Amersfort, Holland, who settled in Albany in 1661, and Francois Bassett, a mariner, who was born in Marcimes, France, and who with other Huguenots arrived as fugitives from France in Boston in 1664 and was a resident of New York in 1685. His son Francis was a governor of the New

York Hospital, a charter member, named in the Royal Charter granted in 1771. In this hospital, his great grandson, Dr. Chapin, served as interne and then as resident physician.

Dr. Chapin was born in New York, on December 4, 1829. When he was about two years of age, the family removed to the vicinity of Penn Yan in Yates Co., N. Y., and there, when he arrived at the proper age, his education began in a country school-house which he has described as a room about sixteen by eighteen feet in dimensions with a sloping shelf attached to the wall for use as a desk with benches or sittings so placed that the pupils faced the wall and the inclined shelf or desk. The teacher sat in the center of the room near the stove. From this school he went to an academy in Penn Yan, but the arbitrary discipline of the teacher was such that he soon left the school.

The years passed in Yates County, the experiences of farm life and all the associations of an impressionable period had a lasting influence upon Dr. Chapin's career.

In 1840 his father, as has been stated, removed to Columbus, Ohio, to assume the direction of the institution for the blind in that city. The journey was made by stage-coach and canal-boat to Buffalo, and thence by lake to Cleveland, Ohio, and by canal-boat again to Columbus, the journey being accomplished in 12 days.

The educational opportunities at Columbus not being satisfactory, it was decided in March, 1844, that he was to be sent to Philadelphia to enter the public schools of that city, and the young lad set off alone by stage-coach, travelling night and day until Harper's Ferry was reached, whence he proceeded by rail to Baltimore and thence to Philadelphia in the same manner.

In Philadelphia he found a home in the family of a friend of his father's and entered the northwest grammar school, where in a short time he was by reason of his high standing offered an opportunity to enter the high school, which however he did not accept. His father had given him letters to different friends in the city, among them one to Dr. Thomas S. Kirkbride, which in due time he presented, thus meeting the man whom he was to succeed as the medical chief of the Department for the Insane of the Pennsylvania Hospital, forty years thereafter. After about a year in Philadelphia, Dr. Chapin returned to Columbus and entered upon

a preparation for a college course at Hudson, Ohio, entering the Western Reserve College in 1846.

His father having removed to Philadelphia, it was decided that the son John should enter Williams College in his sophomore year, and from that institution he received the degree of A. B. in 1850.

While at Williams he had the advantage of contact with that famous educator, President Mark Hopkins. Many of his classmates attained eminence in various fields. Two became college presidents, others attained distinction as judges of courts, clergymen, members of the bar, physicians, and in the military service of the United States in the Civil War.

Early in his student days, Dr. Chapin decided to enter the medical profession, and while in college and during vacations he read several medical books, during one winter joined an anatomical class and attended lectures on the subject. He was aided and in some measure directed in his medical studies by Dr. Charles Hubbell of Williamstown, who invited him to ride with him to see patients, and occasionally to assist him.

On the first of September, 1850, arrangements were made, in conformity to the custom at that time, and for a long time thereafter in vogue, for him to enter the office of Dr. John A. Swett, one of the attending physicians to the New York Hospital, as a student of medicine.

Soon afterward he obtained a substitute internship in the hospital and in 1852, after passing an examination, an appointment on the house staff. During this period he had attended, by permission of the governors of the hospital, medical lectures at the Jefferson Medical College in Philadelphia, from which he received the degree of M. D., in 1853. In 1854 he was made house physician in the New York Hospital after more than two years' service in junior grades. The hospital was then located on Broadway, opposite Pearl street.

Here he had a very active service. Cholera and typhus fever were epidemic in New York during his service in the hospital, and it became necessary to erect temporary pavilions on the hospital grounds. In April, 1852, while an interne at the hospital, he attended the seventh annual meeting of the Association of Medical Superintendents of American Institutions for the Insane, now the American Medico-Psychological Association.

In a telegram sent to the Association in May last at its meeting in New York, in response to a telegram of congratulation on completing fifty years of membership in the Association Dr. Chapin said, "What changes in the care of the insane I have witnessed since my first visit to its New York meeting in 1852 as a visitor, which first inclined my mind to enter its service." During his residence in the New York Hospital he also paid several visits to the Bloomingdale Asylum, the department of the hospital for the insane. The clinical opportunities afforded at the hospital were highly appreciated by the young student. Many conditions now rarely observed were presented for treatment. Cholera and typhus fever have already been mentioned. In addition yellow fever was not infrequently seen, and "during a single month in the summer of 1852 more than three hundred cases of malarious disease (so-called) were received in the medical wards." Sailors with diseases of the tropics; immigrants, many of them from Ireland, where famine prevailed, crowding the ships sailing to America, arriving after long, tedious voyages, in unsanitary vessels, added to the work of the hospital and to the variety of conditions presented for study.

Under such conditions it is not remarkable that many of the resident physicians in the hospitals in New York succumbed to diseases they contracted in the service. Dr. Chapin's zeal in following up some cases of diphtheria in a family stricken with it led to his contracting a severe attack of the disease.

Completing his service in the hospital, with no predilection for private practice, permission was sought to appear for examination for entrance to the medical corps of the U. S. Army. While awaiting a reply to this request, an invitation was received from Dr. John P. Gray, medical superintendent of the New York State Lunatic Asylum, now the State Hospital, at Utica, to accept an appointment as assistant physician at that institution. This invitation was in direct line with Dr. Chapin's inclination and was accepted, and in September, 1854, he entered upon the duties of the position. Here he found problems confronting him quite different from those he had hitherto met. The lack of previous training in psychiatry was recognized, but the application of general medical training already attained successfully met the situation.

THE AMERICAN JOURNAL OF INSANITY was edited and published at the asylum. Its printing at that time was done by patients under the direction of an employed printer of experience and in its editorial conduct, in connection with the medical superintendent, Dr. Chapin found congenial occupation. Here also he found an excellent medical library.

In 1854 the superintendents of the poor of the various counties of the state held a convention and appointed a committee to address a memorial to the state legislature asking for additional hospital provision for the insane confined in the county almshouses. Dr. Gray was present at the convention and vigorously supported the measure and proffered such assistance as he could render in carrying out the laudable desires of the members of the convention.

At Dr. Gray's request Dr. Chapin entered upon the work of procuring data as to the number of insane in the almshouses, and information as to their condition and the methods of care in vogue, and the preparation of the memorial to the legislature.

This memorial, the work almost wholly of Dr. Chapin, appears as Senate Document No. 17, January, 1856, New York State Legislature. Thus began Dr. Chapin's work for the better care of the chronic insane of New York, and the removal of all insane persons from the county almshouses, which culminated in the establishment of the Willard Asylum, now the Willard State Hospital, with which his name will be forever inseparably connected.

The Senate adopted a resolution appointing in February, 1856, a special committee to visit all almshouses, county homes, and charitable institutions in the state, and as a result of its investigations a bill was introduced the following year creating two additional asylums for the insane and an asylum for the reception of insane convicts and criminals.

The bill for the two additional asylums failed mainly because of selfish contentions as to their location, but a bill was passed creating an asylum for insane convicts and criminals within the grounds of the state prison at Auburn. During the year 1857 Dr. Chapin was assigned to the duty of examining the prisoners at Auburn, while Dr. E. H. Van Deusen, then a fellow-assistant physician at Utica, performed the same duty at Sing Sing and

Dannemora prisons. There were at the time 22 insane criminals at the Utica hospital.

About this time Dr. Gray proposed with the full approval of the managers of the hospital that Dr. Chapin be given an indefinite leave of absence with continuance of salary and a provision for necessary expenses, and instruments, to go to Paris and take up research work in neuropathology, especially as related to psychiatry, and in clinical psychiatry.

This was one of the earliest, if not the earliest, of plans in this country to promote special scientific study of mental disorders and their pathology.

A fire which occurred in July, 1857, at the Utica Asylum, destroying the administration building and part of one wing occupied by women patients, resulted in such a disturbed condition in the medical and administrative work at the institution that these plans were for the time abandoned.

It is interesting to conjecture what might have resulted for the good of psychiatry at the Utica asylum and in the community at large had they been carried out, and the marked change in Dr. Chapin's career which would have followed.

Clearly he had made in his three years of service at the hospital a most favorable impression upon his medical chief as well as upon the managers of the institution to have been selected for such work and promised such liberal support.

Dr. Chapin has recorded that during his service at the New York Hospital and at Utica he considered it a "first requisite to acquire knowledge of all the many details of institution work, with abiding confidence that it would become available somewhere at some time."

In the latter part of 1857 he resigned his position at Utica to take effect early in 1858, when his successor was appointed. He was succeeded by Dr. Joseph M. Cleaveland, afterwards medical superintendent of the state asylum at Poughkeepsie, N. Y.

When returning to Philadelphia, he called at Canandaigua, N. Y., upon Dr. George Cook, who had been an assistant physician at Utica under Dr. Brigham, and who after a year spent in foreign asylums, in 1854, returned for a year's further service at Utica in 1855.

Dr. Chapin had then no definite plans. He had thought of entering practice in either Philadelphia or New York, and the medical service of the army or navy had also been considered. He was met by a proposition from Dr. Cook to join him in the conduct of Brigham Hall, a small private hospital for mental disorders which Dr. Cook had established at Canandaigua in 1856.

It was agreed that the hospital was to be enlarged and incorporated. The act of incorporation was passed by the N. Y. State Legislature in 1859, incorporating "Brigham Hall—A Hospital for the Insane." The addition of a new wing was undertaken, with the expectation of having it and certain other improvements completed early in 1860.

In the meantime, having returned to Philadelphia, Dr. Chapin found that his father had been requested to name a suitable person to organize a new institution for the blind in St. Louis, Mo.

This position was accepted by Dr. Chapin, and on March 18, 1858, the day of his marriage to Miss Harriet E. Preston, he left for his new position. The position was accepted for temporary occupancy, as he had become committed to Dr. Cook and Brigham Hall, and in April, 1860, his connection with the St. Louis institution ended.

In May, 1860, he resumed his professional work with the insane, and his association with his friend and former associate at Utica, Dr. George Cook. During his residence in Canandaigua, Dr. Chapin formed many attachments, both personal and local, and his work and associates were most congenial, and to Canandaigua his mind turned as to a pleasant haven of rest, when he retired from hospital work in 1911.

After the convention of the superintendents of the poor of the counties, in 1854, and the action of the state legislature in 1856, which as has been seen came to naught, nothing was done to improve the condition of the insane in the almshouses, and their number steadily increased. There was no law preventing the direct commitment of the acute insane to almshouses, and patients supported by the counties in the single state hospital, at Utica, were removed to the almshouses as soon as their outlook became hopeless, and to make room for other cases.

Dr. Chapin never lost interest in these unfortunates, and when, in 1864, the State Medical Society inaugurated a movement in their behalf he entered heartily upon the work.

A resolution formulated by his associate Dr. Cook and Dr. Charles A. Lee called for a committee to confer with the legislature. This committee, Dr. Charles A. Lee, Dr. S. D. Willard, and Dr. George Cook, in conjunction with committees of the legislature, formulated a bill which became a law in April, 1864, directing the county judges to appoint a physician in each county to visit the almshouse and report upon its condition and that of the insane confined therein.

These reports were directed to be made to Dr. S. D. Willard, secretary of the State Society. From these reports much was learned. Dr. Chapin urged upon Dr. Willard the erection of an institution for the reception of these patients, and that the almshouses should no longer be legal receptacles for the insane, either acute or chronic.

Governor Fenton, in his message to the legislature in 1865, said among other things, "The propriety of establishing an institution for incurables, an institution that shall relieve county authorities from the care of the insane, should be deliberately considered."

A bill was drawn and passed on April 6, 1865, creating the new asylum, which was named the Willard Asylum in memory of Dr. Willard, who died just before its final passage. This bill was drawn by Dr. Willard and Dr. Cook at Canandaigua, and Dr. Chapin was often consulted as to its phraseology and scope.

The title of the bill was "An Act to Authorize the Establishment of a State Asylum for the Chronic Insane and for the Better Care of the Insane Poor." Sections of the law stating its purpose to remove the chronic insane from the almshouses to the new asylum and making it mandatory to transfer and in future commit all acute cases to the asylum at Utica were mainly Dr. Chapin's own composition.

Commissioners were provided for in the act to locate and build the new asylum, and for this purpose Governor Fenton appointed Dr. John P. Gray, Dr. John B. Chapin, and Dr. J. T. Williams.

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The commission selected the state agricultural college property in the town of Ovid, Seneca Co., N. Y., in December, 1865.

In the preparation of plans Dr. Chapin found much advantage from the care which he had taken "to acquire knowledge of all the details of institution work," and he had made a study of the subject before the Willard Asylum was proposed. As it was anticipated that "the majority of the patients to be received would be chronic cases, quiet, orderly and physically able to engage in some occupation about the farm, who might not require more than custodial care, it was planned to construct for this class buildings arranged in detached groups, located convenient to the garden and farm barns, where the patients would be near the work in which they might be engaged."

This was a radical departure from existing methods and met with the usual criticism which attends departures from prevailing methods. The plans also provided for an administration building with a main hospital group attached.

For these plans Dr. Chapin was wholly responsible, and after their adoption and approval by the governor, Dr. Gray resigned from the commission and Dr. Congdon was appointed in his place. From that time Dr. Chapin became, because of the fact that he was the only member of the commission familiar with hospital construction and management, virtually the moving force of the commission.

Under his direction the buildings were located and completed, and for the first time in this country an institution was established with a thoroughly elastic plan, with a segregation rather than a congregation of buildings, and with the distinct purpose in view of facilitating the occupation of patients upon the farm, and in other ways to aid in their own support.

Some criticism of the Willard idea has been indulged in within the last quarter of a century, but by men whose range of vision and whose experience were limited, who had no direct knowledge of the situation which confronted its sponsors, and who were perhaps conveniently blind to the fact that it was in fact the real beginning of State Care in New York. The principle of State Care was engrafted in the Willard Act. It was intended to take and thereafter keep from county almshouses the insane poor. That the legislature of the state from time to time granted excep-

tions to its provisions to various counties of the state, that the State Board of Charities did not actively enforce its provisions, was no fault of the law. The principle was there, the seed had been planted, and to Dr. Chapin belongs the credit. As he has himself written, "If any one can announce a good principle, can evolve from his mentalization some new idea calculated to improve or to contribute a mite even to the welfare of his fellow beings, there need be no concern but that it will find lodgment and not be lost." And so he paid no attention to criticism then or since, content if he had contributed his "mite."

In 1869 the buildings were so far advanced that the legislature abolished the building commission and transferred its powers and the administration of the affairs of the institution to a Board of Trustees, provided for in the original act.

On its organization this board elected Dr. Chapin medical superintendent of the new asylum. He did not desire the position and held the letter of appointment under consideration for three months before finally sending a conditional acceptance. It was represented to him that the institution should be opened by one wholly in sympathy with its purpose, the removal of the insane from the almshouses and the reception of those discharged unimproved from Utica.

The appointment was accepted upon the condition that the service was to continue during the period of organization only and not longer than three years, but subsequent events caused a reconsideration of this decision and Dr. Chapin remained at Willard until called to succeed Dr. Kirkbride at the Department for the Insane of the Pennsylvania Hospital in West Philadelphia in 1884.

The institution was prepared for the reception of patients under Dr. Chapin's direction, after his assuming the duties of medical superintendent, and on October 13, 1869, three patients, one woman and two men, were admitted. From that time dates the medical work of the institution.

Of Dr. Chapin's work, in the conduct of the hospital, it is unnecessary here to speak in detail. The record has been made in the annual reports which Dr. Chapin wrote, in the annals of the state which he so well served, and in the history of his profession.

The establishment of Willard, and particularly the principles laid down in its organic law, mark an epoch in the history of psychiatry in this country. Dr. Chapin was responsible, we have seen, for the prohibition of further almshouse care written into the act, and the whole Willard idea formed a foundation upon which might easily have been built, much earlier than was done, a State Care system, had there not been that unwise economy practised by successive legislatures, which the recently formed Hospital Development Commission, in its first report to the New York Legislature, so justly and emphatically condemned.

In Dr. Chapin's own language, "It can be asserted, without fear of question or contradiction, that the passage of the Willard law and its subsequent administration were the initial steps that eventually destroyed forever the poorhouse system for the care of the insane, and rendered possible the present comprehensive system of State Care in New York that has taken its place."

From the small beginning in 1869 a large hospital rapidly developed. We have used the term hospital with a purpose, for we wish to accentuate the fact that Dr. Chapin had from the first and on all occasions made a point of emphasizing the proposition that in the care of the so-called "chronic" insane at Willard there was to be no lowering of the standard which had been established at the then only state asylum in New York, at Utica, a standard which for a long time had been one to be modelled upon and emulated by other institutions in other states.

To again quote from Dr. Chapin, "Whoever may perchance stand upon the divide between the Lakes Cayuga and Seneca in that beautiful region of New York, and descend the gentle slopes that lead to the shores of Lake Seneca, will today see a magnificent estate of more than 1000 acres, upon which has been erected a well-equipped hospital and colony, providing for more than 2200 insane persons."

Somewhere upon a commanding site on that great estate should be erected a shaft to the memory of the man who had the vision and who had the force and perseverance to make that vision a reality. And upon that shaft should be inscribed Sir Christopher Wren's epitaph in St. Paul's Cathedral: "*Si monumentum requiris, circumspice.*" In the words of Hazlitt, "Those only deserve a monument who do not need one; that is, who have

raised themselves a monument in the minds and memories of men"; and this is singularly true of Dr. Chapin.

Shortly after the death of Dr. Kirkbride, for more than 40 years the physician-in-chief of the Department for the Insane of the Pennsylvania Hospital, Philadelphia, Dr. Chapin was asked to accept the position thus made vacant. The invitation was twice declined, the roots had struck deep at Willard—there was a disinclination to abandon a work to which for many and obvious reasons he was deeply attached—but finally he became convinced that it was his duty to accept, and in September, 1884, he entered upon a service in Philadelphia which continued for 27 years.

Dr. Chapin had in 1884 reached the age of 55. He was still active, still looked forward, and though lacking some of the elasticity of his earlier years was not lacking in enthusiasm or initiative. He saw opportunities in his new field and was not slow in seizing upon them.

But two members of the medical staff remained to serve under him, and he found it necessary to find others to take the vacant places; the methods of administration in vogue had to be learned, and, as necessity arose, modified. Careful clinical study was urged upon his assistant staff, and as far as possible pathological and clinical laboratory work encouraged; and, in short, without making any revolutionary changes new ideas and new methods were brought into prominence.

Shortly after going to Philadelphia a fire occurred in the insane department of Blockley, the city almshouse and hospital. Several insane patients lost their lives and much property damage was incurred. Blockley Asylum had long been condemned as a place of detention for the insane. The Association of Medical Superintendents of American Institutions for the Insane had repeatedly put its stamp of disapproval upon it, but conditions which should long before have been changed were permitted to continue.

After the fire Dr. Chapin and the writer, but recently called to Philadelphia as his assistant, were asked to confer with the Board of Guardians of the Poor as to the best course to follow. At that conference Dr. Chapin outlined a plan which if followed would have given Philadelphia the honor of establishing the first Psychiatric Clinic in the United States. He pointed out to the board the real situation; showing them that Blockley was badly over-

crowded, that there were no adequate means of exercise in the open air, no provision for occupation, no proper nursing, and not sufficient medical care and supervision. He called attention to the very large annual admission rate, small recovery rate and a large death rate. He then dwelt upon the need of training in psychiatry for young men, which then in this country in medical schools was wholly lacking, and the excellent clinical opportunities at Blockley for the medical schools of the city. He said:

Establish here a small hospital of from 100 to 200 beds, to which all cases coming under city care shall be sent at once. Concentrate here the medical work, to be done by a large resident staff under a competent chief. Establish laboratories and all the requisites of a good hospital, and use the material for clinical instruction. A certain proportion of the cases admitted will need but a few weeks' care here; many others, longer care, and many permanent care. Establish therefore in the country a colony farm with its hospital and medical and nursing staff, and its groups for permanent cases who should be employed on the farm and in shops, and contribute to their own support.

We have given here but a hasty outline of a lengthy conference, but it can be seen what an excellent scheme was laid before the board—only, alas, to be rejected as too expensive! The burned wards were rebuilt, and the old routine went on, to the everlasting disgrace of the city of "Brotherly Love."

Dr. Chapin soon fell into his natural place in the medical, philanthropic and social life of Philadelphia, and was an effective force in the life of the city and the state.

He was elected president of the Association at the meeting held at Old Point Comfort, Va., in 1888, and delivered the presidential address the following year at the meeting at Newport, R. I.

Among other things in this notable deliverance he touches upon a movement made in 1887 to revise the "Propositions." He said:

Any propositions we might adopt are but announcements of opinions held to-day, which 20 years hence may come to be regarded by those who follow us as inapplicable platitudes. Is it proper to restrict and define the freedom of thought, inquiry and expression of opinion that we today enjoy? Is it just to those who may follow us to attempt to set a limit to the tendencies of the future? Ought it ever to occur again that the presentation and consideration of important subjects at our meetings can be antagonized by no better argument than by so-called principles and propositions adopted a score of years previously and under conditions perhaps entirely changed?

In this last paragraph one can catch a reflex of Dr. Chapin's experiences in the discussion of the Willard plan at the meetings of the Association.

In the address referred to he also called attention to the inadequate salaries paid to medical officers of hospitals for the insane in many instances. He was always of the opinion that some provision should be made for a retirement allowance after a certain number of years' service, and an advocate of a secure tenure of office for medical superintendents, without the fear of political interference therewith, which is so often the case.

Dr. Chapin received the honorary degree of LL. D. from Jefferson College, Pennsylvania, and from his alma mater, Williams College. He was a fellow of the College of Physicians of Philadelphia, and an honorary member of the Medico-Psychological Association of Great Britain and Ireland and the Société de Médecine Mental de Belgique.

In 1898 he published a "Compendium of Insanity" for the use of students and general practitioners, which was well received, and served a most useful purpose.

On the first of December, 1904, he was given a complimentary dinner at the Bellevue-Stratford Hotel in Philadelphia, which was very largely attended, and which marked the completion of fifty years' work in hospitals for the insane. On this occasion he was presented a life-size portrait of himself, copies of which were afterward placed in the hospital in West Philadelphia and at the Willard State Hospital. Subscriptions for the dinner and portrait came from all parts of the country as well as from abroad, and the after-dinner speeches, the letters and telegrams which came from many unable to be present, united in voicing the affectionate regard which the many friends of the honored guest felt for him, and the high esteem they had for his attainments in his chosen field of work.

It is given to few men to round out a half-century of active constructive work, and to retain the mental and physical vigor which was shown by Dr. Chapin on that occasion.

He had exceeded the Psalmist's limit of three score and ten, and on more than one occasion then and afterwards brought before the managers of the hospital the question of laying down his office, but was assured that it was the desire of the board that he continue

to preside over the conduct of the hospital as long as he felt in condition to carry on the work.

For seven years longer he remained at the hospital in West Philadelphia, resigning, and moving to a home which he had prepared in Canandaigua, in the summer of 1911. His last attendance at a meeting of the Association was in 1913 at Niagara Falls. He then showed little of the physical weakness of age and no perceptible diminution of his mental vigor. He carried on a correspondence with his more intimate professional friends until within a few months of his decease. It was a common thing to find at the close of a letter a postscript which read, "Does my handwriting show any of the effects of age?" He read the *AMERICAN JOURNAL OF INSANITY*, and commented from time to time on its contents. The account of the proceedings of the meeting in New York published in the number for October, 1917, he followed with interest.

In the early summer of 1916 he met the greatest grief of his life, in the death of his wife, after more than fifty-eight years of the most intimate and loving association.

To those who have had the honor and pleasure of an intimate knowledge of Dr. Chapin's home life some appreciation will come of the great blow which thus descended upon him. Mrs. Chapin had met with an accident several months prior to her death which practically confined her to her room, and the doctor's assiduous attention to her filled her days with peace and comfort. After her departure he seemed more or less dazed. He could not adjust himself to the changed conditions—he had lost not only his occupation in looking after her every wish, but he had lost his bearings in a measure.

He passed a portion of the summer of 1917 with his children and grandchildren at a summer home near Albany on the Hudson, and in many ways appeared like his old self, but he missed the voice that was gone, and the touch of the vanished hand.

His home life after his wife's decease was made as cheerful as possible by the continued presence in turn of one of his daughters, of whom three, all married, and one son, survive him. He occupied himself with writing and with his books, and in seeing his friends.

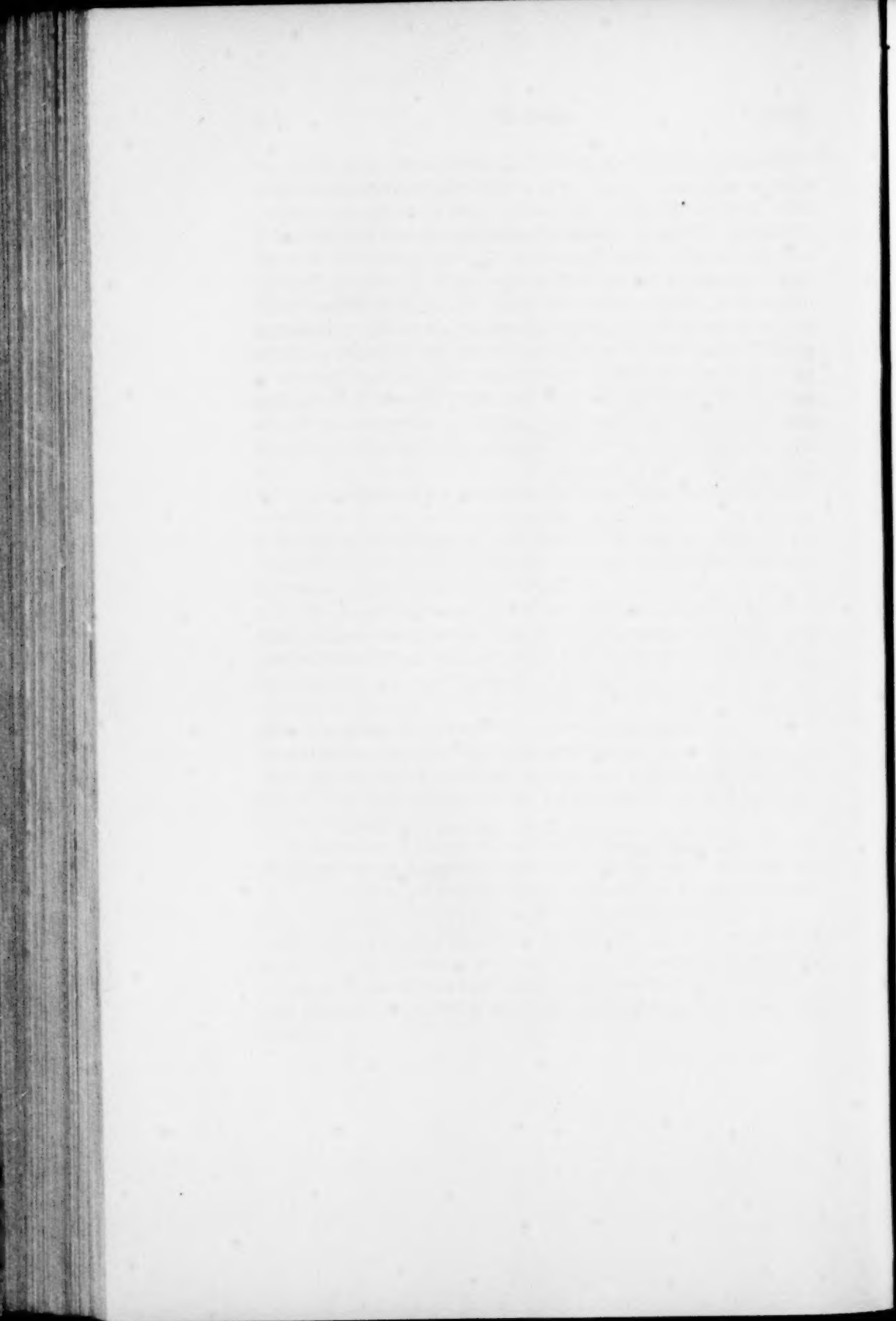
He went about the streets of the beautiful old town when the weather permitted. A day or two before his death he went down town with his daughter, and shortly after returning home complained of feeling ill. When a physician was sent for he said it was unnecessary, as he knew what was the matter—it was the breaking down at the end, and so it proved to be. He retained his old jocular manner almost to the close. His medical advisor called in a consultant and together they gave their patient a thorough physical examination. As they went from the sick room to confer he remarked, "They'll go down stairs and give my disorder a name, but that will not change the result." The end came rapidly, with fortunately little suffering, and on the afternoon of Thursday, January 17, 1918, "in the comfort of a reasonable religious and holy hope," he fell asleep.

Dr. Chapin's great force arose from his self-control, and his careful preparation for the work before him, which led him to study every problem presented with a feeling as he expressed it that the knowledge obtained would become available "somewhere, at some time." He was a man of most straightforward character, with no suspicion of indirectness in his methods. Of deep religious convictions, he carried his religion into his daily life and made it a religion of service to God and his fellowman. In this he exemplified Whittier's dictum, "He who blesses most is blest."

As a great administrator, as a far-seeing philanthropist who accomplished more for his fellowmen than can now be estimated, as a conscientious and well-trained physician, he has set his mark upon the history of his country and his profession.

"Servant of God, well done; well hast thou fought
The better fight."

EDWARD N. BRUSH.



Book Reviews.

First Annual Report of the Massachusetts Commission on Mental Diseases of the Commonwealth of Massachusetts for the year ending November 30, 1916. (Boston: Wright and Potter Printing Co., State Printers, 1917.)

Although under a new name it is not difficult to recognize an old friend. In fact, the difficulty lies in recognizing that the book which we have learned to expect with pleasure each year has changed in any degree. Appearance and arrangement are similar to former volumes.

On October 1, 1916, there were under care in Massachusetts, 15,048 insane patients, or one insane person to every 250 of the estimated population of the state. In addition there were 1213 persons who were temporarily absent from institutions. There were under family care 64 patients, a decrease of 22 over the previous year. Family care under the commission was inaugurated August 10, 1885, since which date 1274 patients have been placed. It is interesting to note that there has been a decrease in the number of patients cared for in this way, even though since 1905 the trustees of institutions have been authorized to board out patients in families, thus tending to increase the total number. Apparently this has been a better plan, as under the commission, but 30 patients were placed during the year, and under trustees, 230.

At the same time it appears that the total number under family care is steadily decreasing, so that it seems doubtful if such is quite so satisfactory as institutional care. It would also seem that patients would be happier where there are a considerable number of associates who are similarly handicapped.

Of more interest than the statistics, however, are the reports of the two semi-annual conferences which undoubtedly promote a better understanding between the commission and the officers of institutions. At the first were considered Tuberculosis in State Institutions, and Relative to Receipts from the Sale of Farm Products. At the second, What Measures should be taken to meet the Shortage of Nurses and Attendants in State Institutions? While all of these questions are discussed in an interesting manner, probably the last is one upon which the majority of hospital superintendents are anxious to receive information. A perusal of the book is recommended.

It should be understood that the commission was in service for but two months of the year for which the report is made. The greater part was administered by the State Board of Insanity which the commission succeeded.

W. R. D.

The Principles of Mental Hygiene. By WILLIAM A. WHITE, M. D. (New York: The Macmillan Co., 1917.)

In his preface, Dr. White says, that despite the fact that for years a small group of philanthropic individuals have been fighting the battles of the failures in life and trying to secure for them an adequate understanding, nothing has issued from the sponsors of the work that could be called an adequate statement of principles scientifically founded and practically workable.

He asserts, however, that the battle for mental hygiene has been won, that mental hygiene has come to stay. The problems, he asserts, which those who have engaged in the work have undertaken to solve, have been many and though apparently disconnected are not so in fact.

These problems have been: "The care of the insane, prison reform, pauperism, alcoholism, feeble-mindedness, juvenile delinquency, atypical children, vagrancy, prostitution, vocational education, the neuroses and psychoneuroses, drug addiction, social hygiene (venereal prophylaxis), patent medicines, faith cures and many others, all of which have been recognized by some as being problems that would have to be attacked, more or less, exclusively by methods founded on the principles of a hygiene of mind." Truly a large and all-embracing list, one which brings together many apparently unrelated subjects, which however, upon examination, having in view what mental hygiene really hopes to undertake and accomplish, are found to be fully embraced within its purview.

Chapter IV is headed *The Insane*, and several pages are taken up with an attempt to correct "an almost universal misapprehension as to the meaning of the word insane." The term insane as used by many no doubt conveys little meaning—beyond the implication that the person who is called insane is of unsound mind—just as the term sick conveys no intelligent idea of the form of malady, its cause or its severity. The term does, however, by common acceptance convey a distinct idea of a mental disorder, shown either in conduct disorders or in disorders of thought, not uncommonly expressed in delusions.

We do not see, therefore, that any less confusion, if such exists, will result from substituting the terms mental disease and psychosis. It would not clarify the situation any if one should substitute for the word "sick" the terms bodily disease or physical disorder. A brief sketch of the history of the care of the insane is incorporated in this chapter.

Dr. White is a believer in the goodness, or as he puts it "decency" of human nature, and believes that it is shown daily by attendants and nurses under the most trying conditions in our institutions for the insane "who have nothing within to draw upon but just their spirit of kindness, gentleness and sympathy."

Something, however, more than kindness he asserts is needed, and "that something more" is knowledge. With this all will agree, and to this end training schools in our hospitals for the insane have been introduced and coupled with kindness and tact, knowledge, the greater of the three, but

of no value unless coupled with them, is helping revolutionize the care of mental cases in hospitals.

The outline of hospital conduct, of the getting at the patient, of the study of his psychosis as well as his physical ills, of its origins, whether environmental or otherwise, is excellent. Coupled with the hospital care, Dr. White would have intelligent social workers to assist patients in their readjustment to the demands of social life.

Mental hygiene to the author means such a study of mankind, sane and insane, or as he would on pressure prefer us to say normal and psychotic, in all the various relations of life, in all its conflicts and adaptations, as shall aid in meeting those conflicts, in making proper adaptations in realizing tendencies and weaknesses which lead to bad mental state, and in intelligently studying those who have mal-adjustments in order to help them in helping themselves. There are no rules, there are certain general principles applicable some to one, some to another problem, but all worked out in dealing with individual cases. The individual must therefore be taken as the social unit, and whether a criminal or a vagabond, a psychotic individual or an imbecile, there are certain principles which applied to the individual work for good to the whole and certain which applied to the whole or the group work for the good of the individual.

The larger and more general problems are the problems of mental hygiene.

Rest, Suggestion and other Therapeutic Measures in Nervous and Mental Diseases. By FRANCIS X. DERCUM, A. M., M. D., Ph. D., Professor of Nervous and Mental Diseases in the Jefferson Medical College, Philadelphia, etc. Second edition. (Philadelphia: P. Blakiston's Sons & Co., 1917.)

This work first appeared as Volume VIII in the System of Physiologic Therapeutics, edited by Dr. Solis-Cohen. It has been largely revised and rewritten.

The author calls particular attention to the interpretation of simple neurasthenia as a fatigue neurosis, and the necessity of distinguishing between neurasthenia and psychasthenia, and the line of demarkation which must be drawn between both these conditions, hysteria and hypochondriasis.

Regarding these matters it seems more than probable that experiences in army hospitals and elsewhere in the clinical study of neuroses and psychoses, resulting from military service, will modify many of the accepted views of the present day.

The work is divided into three parts. The first part comprises six chapters, the second two and the third, two.

Chapter III of part one treats of rest in neurasthenia and allied neuroses, and will be found for the general practitioner a very valuable résumé of the various reasons for so-called rest treatment, the methods and modifications of rest. Chapter IV is upon hysteria and its treatment, and then

follow chapters on hypochondria, and upon the application of rest in chorea and other functional nervous diseases, and in organic nervous diseases.

Part II takes up the therapeutics of mental diseases and in the main, the suggestions are such as may be recommended. Rather more reliance upon therapeutic methods with drugs will be found in Dr. Dercum's teaching than would be advised by most hospital men. The total disbelief of the author in Freud or his school, would of course explain the absence of anything looking toward an analysis of the patients ideas, or an attempt to assist him toward a better adjustment with his surroundings.

In the treatment of alcoholic delirium the author does not appear to have learned of the experiences of the Boston Psychopathic Hospital, where the results are certainly comparable with those reported by Hogan of California whose method he quotes with apparent approval, and the methods employed at Boston are certainly easier of administration in any well-organized clinic.

The book on the whole is one which contains much of value. Much of the last section is interesting from a historical point of view, but much of the material incorporated does not afford anything of value to the reader seeking suggestions for treatment.

Half-Yearly Summary.

CALIFORNIA.—*Norwalk State Hospital, Norwalk.*—This hospital is at present caring for 270 patients. There is being constructed two receiving cottages, one for men and one for women. Each will have a capacity of 70 beds and have its own hydrotherapy department. * Another cottage for 100 women patients is also being constructed.

—*Southern California State Hospital, Patton.*—During the past year an industrial building has been constructed which houses the shoe, mattress, carpet and rug industries. There is under construction a nurses' home with a capacity of 40 beds, and a patients' cottage with a capacity of 100 beds.

CONNECTICUT.—*Connecticut Hospital for the Insane, Middletown.*—During the past six months the hospital has suffered from two disastrous fires. The first occurred October 15, 1917, resulting in the complete destruction of the North Horse Barn, and causing a gross fire loss of approximately \$10,000. Circumstantial evidence indicated the fire to be of incendiary origin, and one of the farm laborers, toward whom suspicion was directed, is now under arrest on a charge of arson, awaiting trial. The suspected culprit was found to have formerly been an inmate of an institution for inebriates, and is probably a defective, as there appeared no apparent motive for his act.

On January 10, 1918, a second fire occurred, destroying the eight male wards constituting the South Wing of the Main Building. There were approximately three hundred patients in the structure at the time of the fire, and although the flames rapidly gained headway, they were all safely removed except five patients on the fourth, or top floor, who were in a small dormitory which was shut off by flames within a few moments after the fire started. The bodies of the five patients who lost their lives were afterwards recovered, but so badly burned that identification was very difficult, although finally established in each case. The cause of this fire is uncertain, but no evidence appeared to indicate incendiary origin. The gross loss amounted to approximately \$110,000.

The two fire companies, composed of hospital employees, did excellent service at both fires, and did much to prevent the loss from amounting to even more than was the case. In the second fire, however, the loss would have been much greater had the hospital not received assistance from both the Middletown and the Hartford Fire Departments, as at one period during the conflagration it appeared impossible to save any portion of the Main Building, which is the oldest building of the hospital, and far from being a fireproof structure.

Following the barn fire, plans were at once prepared for reconstruction, and a new concrete fireproof horse barn is rapidly nearing completion. It is connected by a bridge with a new hay and feed storage barn built at some distance from the horse barn. With fireproof doors at either end of the connecting bridge, the hay barn could burn without endangering the horse barn, where combustible contents will be reduced to a minimum.

The plans for the reconstruction of the South Wing of the Main Building are in preparation and call for a fireproof building.

Owing to the loss of capacity occasioned by the fire, the admission of male patients has been discontinued. By utilizing the Amusement Hall temporarily for bed space, and by subsequently converting several ground level basements into wards, it has been possible to care for the patients formerly housed in the burned building without any great degree of discomfort.

On examining the dairy herd for tuberculosis, it was found that 75 animals out of the herd of approximately one hundred and sixty head were tubercular, and were, therefore, slaughtered. As certain conditions in the cow barn favored the development of tuberculosis, the State Board of Control granted the hospital sufficient funds to completely renovate the interior of the building. Such work is nearly completed, and with a concrete extension to the dairy barn now in course of construction, the cow barn will be a most satisfactory unit. An arrangement at this barn similar to the one followed at the horse barn will also minimize the fire risk to the dairy barn, as a frame hay barn, formerly adjoining the dairy barn proper, has been moved some distance away, with a connecting bridge, with fire doors at either end, between the two structures.

In replacing the destroyed tubercular cows, it has been determined to follow the policy of purchasing only high grade stock of the best milk-producing strain. Several heads of advanced registered Holstein cows and a bull have been purchased to form a nucleus from which the hospital may develop its own herd, although to meet present needs it has been necessary to also purchase a considerable number of grade animals.

All patients working out of doors have been placed under the direct charge of an outside supervisor, who co-ordinates and systematizes the work done by them. Since the establishment of such position, it has been possible to increase the number of outdoor workers, while their work has been more productive of results.

A new workshop for male patients has been established, where cement work, basketry and brush-making are done. With the enlarged quarters afforded by the new shop, an increased number of patients are instructed in occupational training, and an additional instructor has been appointed to assist in carrying on the work.

By establishing re-educational work in connection with each of the pack rooms, it has been possible to diminish the destructiveness of disturbed patients and to greatly aid in producing more orderly conduct.

A beginning has been made in placing women attendants upon male wards. A woman nurse has been placed in charge of the male infirmary,

and a woman attendant has been placed in charge of one of the male dining rooms. Both have improved the service in their respective departments, and it is planned to add to the number of women so employed as soon as suitable candidates can be found. There is at present a great dearth of applicants for all positions, and it is only with great difficulty adequate service is maintained. There are at present 24 stars upon the hospital service flag, including stars for two of the medical staff now in the military service.

The hospital has followed the regulations of the government food administration in all details, and a considerable saving has resulted. It has been possible to likewise effect considerable fuel saving, despite the unwonted severity of the winter, by rearranging hours of work in the laundry, so as to eliminate all work on Saturdays; by discontinuing the use of drying closets on the wards; by discontinuing the use of the greenhouse for forcing early garden truck; and by the careful elimination of all leaks.

A new dining room for office employees has been provided by fitting up an unused room at the Middle Hospital, formerly used as a kitchen before the establishment of the congregate dining room. It is thus now possible for the whole clerical force to eat at the same hour, lack of space having formerly rendered this impossible.

By reducing the unit amount of supplies issued to dining rooms, it became no longer necessary to use a large storeroom adjoining the congregate dining room, and such room has been converted into a dining room for ward attendants, thus removing the necessity of having them eat in the patients' dining room, as was formerly the case.

A sick room has been fitted up on both the male and female reception services for the use of sick male and female employees respectively.

Despite the presence of typhoid fever during the autumn months in the neighboring community, and of smallpox throughout the winter, the hospital has had no cases of either disease, a result which must be largely attributed to the complete immunization against typhoid fever, and vaccination, which were carried out as routine measures.

Four diphtheria carriers were found among the employees, all being promptly isolated in the isolation cottage. A considerable period elapsed before successive negative cultures were obtained, but so far as known, no carriers now remain in the hospital, and no cases of diphtheria developed.

GEORGIA.—*Georgia State Sanitarium, Milledgeville.*—A new brick addition was begun in February, which will accommodate 500 negro patients. The crowded condition of the negro quarters made this necessary. An appropriation of \$89,500 was made by the last legislature for the construction of this building.

ILLINOIS.—*Chicago State Hospital, Dunning.*—A portion of the receiving ward cottages for both men and women have been remodeled to provide hydrotherapy wards for the more acute cases.

The employees' dining-room has been removed to the second floor of the old Assembly Hall.

The new Assembly Hall, seating 1200, was opened in December, at the graduation exercises of the Training School for Nurses. There were 13 graduates in the class of 1917. Two are already in the service, one in Canada and one in the United States.

The new power-house, boiler capacity 2200 H. P., has been finally connected with the general heating system and is now furnishing practically all steam and electric current for the institution.

The new bakery and kitchen have recently been occupied.

IOWA.—*State Hospital for Inebriates, Knoxville.*—On account of this state having become dry, there is at present but 71 patients in this hospital. The cost of maintenance for the quarter ending December 31, 1917, was but \$3445 as compared with \$12,243 for the corresponding quarter of the previous year.

KANSAS.—*State Hospital for Epileptics, Parsons.*—The institution is now opening its hospital building, which is designed for the acutely sick of both sexes, for surgical cases and those under observation or special treatment. This building has been carefully planned and constructed and will add much to the efficiency of the institution.

KENTUCKY.—*Central State Hospital, Lakeland.*—The cottage occupied by tuberculous patients was destroyed by fire November 26, 1917.

MARYLAND.—A meeting of the State Lunacy Commission with the Boards of Managers of the state institutions and the Board of State Aid and Charities was held in Baltimore, November 22, 1917. It was reported that on September 30, there were in the 20 institutions under the supervision of the commission, 5,196 patients, or one to every 262 of the population. By paroling patients under the supervision of an after-care agent and making them wholly or partially self-supporting, a saving of \$10,693 had been made for the state. It was urged that farm colonies be established at the state institutions.

—*Spring Grove State Hospital, Catonsville.*—An appropriation of \$80,000 for the completion and equipment of the psychopathic hospital at this institution has been approved by Governor Harrington. This has been offered to the United States Government to be used for the care of soldiers and sailors suffering from nervous and mental disorders.

—*Sheppard and Enoch Pratt Hospital, Towson.*—The severe winter caused a suspension of work on the pergola to the west of the Recreation Building, but the upper woodwork is now being put in place.

The pathological laboratory in the Men's Building has been dismantled, four bedrooms, three bathrooms, and two sitting rooms having been con-

structed in the space formerly occupied by it. These are arranged so that they can be used in suites.

Red Cross work continues to actively occupy patients.

MASSACHUSETTS.—*Boston State Hospital, Dorchester Centre.*—A new system of nomenclature has been adopted for the buildings of the hospital.

A dietitian has been appointed and a system of waste accounting introduced.

Some of the old buildings near the West Group have been removed.

The new nurses' home at the West Group is under way and will be occupied during the next few months.

The building which is being remodeled in the West Group will bring the capacity of the hospital up to over 1800 beds.

In the future, male patients will be admitted at the West Group of the hospital, instead of the East, the reception service for men being established in building G.

The Nurses' Training School has been affiliated with Bellevue Hospital, New York City, and general hospital instruction covering a period of 10 months will be given.

An estimate system has been introduced showing all items which are to be charged to the maintenance fund of the hospital and all estimates are revised and approved by the Board of Trustees in advance of any expenditures.

A general rearrangement has been made in the Administration Building in the East Group.

—*Danvers State Hospital, Hathorne.*—The shortage of nurses and ward help during the year has been a most serious problem. Judging by the records of applications for ward positions, young men and women of the type desired in our work found superior attractions in other fields, and a much smaller number sought institutional positions than in previous years. There were times when the wards were so short of help that there was less than one attendant for 60 patients. Even in those wards where the most disturbed cases are cared for, it has been necessary to carry on the service with less than half the force of attendants normally required.

Outside of Massachusetts the same difficulty seemed to prevail, and in several states a schedule of salaries providing a considerable increase over former ratings was established to offset the handicaps of a labor market offering higher compensations and easier, more attractive conditions. Under these circumstances the supply of help, already inadequate, was reduced to an alarming extent.

A careful study of the situation was made by the Director of the Commission on Mental Diseases and the superintendents of the various institutions. It became evident that only an increase in the rate of compensation for nurses and attendants equal to that given in other states offered any possibility of a solution of the problem.

A new schedule of salaries for this group was adopted, providing an increase of \$5 per month in initial rates, and \$2.50 increases at the end of three and six months' services.

Some relief from the difficulty which handicapped the work of the hospital was immediately apparent. At least those already in the service were not tempted to leave through greater inducements for similar service in other states. For the time being, there has been averted the danger of hospital care and treatment degenerating, through lack of a sufficient force of helpers, into a routine effort to feed, clothe, and shelter the great number of patients it is necessary to receive.

Intensive treatment of neuro-syphilis by the administration of mercury and diarsenol intravenously has given excellent results in a number of cases. Remarkable improvements have been noted. It is yet too early to pronounce a permanent cure in any case, but an abridgment of the course of symptoms or an unusually prolonged remission may justly be claimed in several instances. Three patients with all the classical symptoms of paresis at the time of admission, have after a course of treatment been able to resume their places in society, and carry on satisfactorily their usual occupations.

A graduate of the Forsyth Dental Infirmary has been engaged as a dental hygienist, and a systematic course of prophylactic and remedial treatment has been put into operation. It is anticipated that great benefit to patients will result from this new departure in a field of therapy heretofore almost wholly neglected.

Occupational therapy has engaged earnest attention during the year. Five trained teachers have given their time solely to re-educational methods. Pottery, weaving, metal work, basket making, drawing, rug making, embroidery, etc., have furnished opportunities for physical and mental employment and recreation that have contributed greatly to lighten the burden of patients' afflictions, to restore their interest, and to awaken hope that their usefulness in the world had not wholly passed away on the day of their commitment to the hospital. Some of the work turned out in the arts and crafts department compares favorably with handicraft of most skilled workmanship. The influence of varied occupation of this kind, with its compelling appeal to interest, is found to be of excellent therapeutic advantage in almost all stages of mental illness. It is most cheering to behold the heartiness shown in learning weaving, basket making, pottery making, and other arts, by patients whose hospital life would otherwise be a succession of days of wearying tedium and disheartenment. Places for special work of this kind for the demented class are being prepared on the fourth floors.

The work of the social service department deserves special mention. With the medical staff reduced in number, a great deal of extra work fell to the social worker and her assistant. The very important duties of interviewing friends and relatives, obtaining histories, investigating home conditions and complaints relative to patients, were largely delegated to this department. After-care work, connection of needy persons with relief

agencies, and the placing and boarding of patients in private families, were carried on as usual.

Out-patient clinics have been held monthly in seven centers in this district.

MINNESOTA.—*Hospital Farm for Inebriates, Willmar.*—The institution has been changed to an asylum for insane with one ward for male and one ward for female inebriates.

Two cottages housing 78 insane male patients; each will be completed in June, 1918.

Capacity of the laundry has been more than doubled, and new machinery installed.

A new generator, 75 K. W., a new water heater, and a new deep well, has been added to the power plant.

—*Rochester State Hospital, Rochester.*—An epidemic of diphtheria, involving about 250 cases, lasted from about the middle of July until the latter part of October. Fortunately there were no deaths.

MISSOURI.—*State Hospital No. 4, Farmington.*—An annual tree planting has been inaugurated in this hospital. Hard maple and other trees have been planted by the landscape gardener.

NEBRASKA.—*Nebraska Hospital for the Insane, Lincoln.*—The legislature of 1917 appropriated \$143,000 for new buildings. Of this amount, \$3000 is for a new greenhouse and it is hoped that two hospital buildings may be erected with the \$140,000, a building for men to house approximately 175 patients and an addition to the old main building for women to house approximately 75 patients. The institution is overcrowded at present in attempting to care for 765 patients.

NEW JERSEY.—The legislature has passed a law providing for a Board of Charities and Corrections to consist of eight persons, one of whom is to be a woman, which will have general supervisions over all state institutions. They are empowered to choose a commissioner, who will receive a salary, and to appoint a Board of Managers for each state institution. These boards are to select a chief executive. The Board has been appointed and consists of Dwight W. Morrow, Chairman of the Prison Inquiry Commission; E. P. Earle, investigator of non-correctional institutions; Mrs. Lewis S. Thompson, a leading social worker; Frank A. Fetrtridge, a labor leader; Dr. John Nevin, a member of the Board of Managers of the New Jersey State Hospital at Morris Plains; Dr. William S. Jones, a member of the Board of Managers of the Tuberculosis Sanatorium; Ogden H. Hammond, a member of the Prison Inquiry Commission; and Richard S. Stockton, Commissioner of Charities and Correction.

—*New Jersey State Hospital, Morris Plains.*—This hospital has recently established a clinic for the treatment of syphilis.

An almost sightless patient has constructed a machine for making whisk-brooms from the waste of the regular broom industry.

NEW YORK.—Two bills before the legislature provide for two new state hospitals in the metropolitan district, also for a new state board to handle the problem of the feeble-minded.

The report of the State Charities Aid Commission shows that the 13 state hospitals with an estimated capacity of 27,890 had on December 31, 1917, a population of 34,798, or an excess of 25 per cent. This is especially bad in the metropolitan district where four state hospitals have one-half of the excess population of the state hospitals.

The Hospital Development Commission has brought in a report which is reviewed elsewhere in this number.

—*Binghamton State Hospital, Binghamton.*—In the last summary printed in the JOURNAL six months ago, mention was made of the additions to the laundry and the power plant and the installation of new boilers. The contracts covering the same have been completed and the additional equipment is now in operation to the great advantage of the institution.

The annual meeting of the New York State Nurses' Association was held in Binghamton, in October, one session of which was held at the Binghamton State Hospital, the nurses being entertained at luncheon, after which they made a general inspection of the institution. At this convention the hospital made an interesting exhibit of articles made by patients. The hospital also made an unusually attractive exhibit of articles manufactured, at the Annual Conference of Charities and Correction, which was held in Binghamton, in November.

The hospital is well represented in the federal military service. This service now includes two of the physicians who are in the service and two more await a call to report for duty; 27 employees have left the hospital for military or naval duty. The state of New York, under special statute, pays to all those employees who enter the federal military service the difference between the pay they were receiving from New York State and the pay the federal government allows them for military or naval service, with the special provision that in no instance shall such payment by New York State be less than \$25 per month.

—*Buffalo State Hospital, Buffalo.*—In November, 1917, the Buffalo Base Hospital Unit, No. 23, left for France. This included two physicians and nine employees from this hospital, and since that time three other physicians and a number of employees from various departments have entered military service, so that the hospital service flag now contains 40 stars.

No new buildings have been erected, but a new heating system in the Main Building, men's wards, is being installed.

A great amount of work for the Red Cross has been done by employees and patients, numbering nearly 5000 patients.

—*Central Islip State Hospital.*—Centralization Power Plant: The legislature of 1917 authorized the construction of a centralization power plant. The contractors began the work last fall and the work progressed rapidly through the winter and spring. Concrete footings and basement walls are more than half completed. A large quantity of materials, consisting of posts and brick, are on the grounds.

Extension to Laundry: The legislature of 1917 further authorized the completion of a much needed extension to our laundry. This work was begun by the contractor in the fall and work progressed throughout the winter. The roof trusses have been placed and practically all the wood-work laid thereon; it is now ready for slating.

—*Kings Park State Hospital, Kings Park, Long Island.*—The work on the additional driven wells (2) has been completed and the wells are now in use. Our source of water supply at present consists of 10 driven wells.

Work on the new Employee's Home is progressing fairly satisfactory and we expect to be able to use it by October, 1918.

A new chlorinating apparatus is being installed at the sewage disposal plant.

—*Rochester State Hospital, Rochester.*—Additions to the men's chronic and industrial building are near completion and a part is now in use. When completed accommodations for about 36 more men patients will be provided.

A new ice house has been constructed.

Replacement of a 4-inch water main by an 8-inch main has been completed. This line supplies barns and other out-buildings which will make better fire protection.

—*St. Lawrence State Hospital, Ogdensburg.*—A contract for the erection of a new chimney at the power house has been awarded at a cost of \$9778. This replaces the old stack which shows defects and is in danger of falling.

The coal shed for the storage of coal is being enclosed and roofed. Amount of contract, \$8480.

An appropriation has been made by the legislature for the construction of a new horse barn for the farm horses, a much needed addition to the farm buildings.

During the year 1917 the hospital produced 554,025 quarts of milk.

The profit from the farm during the year 1917 was \$41,593.67.

A number of patients and employees of the hospital have been knitting for the Red Cross and the National League for Women's Service, and many articles have been completed.

Entertainments have also been held for the benefit of the Red Cross.

The subscription of the officers and employees of this hospital to the first Liberty Loan was \$27,500; to the second Liberty Loan, \$13,750.

A total of 29 officers and employees of the hospital are now in the service of the United States Army and on November 29, 1917, a service flag with 29 stars was presented to the hospital.

—*Utica State Hospital, Utica.*—In December, a party of 60 patients, 30 men and 30 women, was transferred to the Willard State Hospital. These patients were largely from Syracuse and Onondaga County.

This hospital is now conducting a mental clinic on the last Thursday in each month at the Ellis Hospital in Schenectady. The staff physician who conducts the clinics is assisted by the social worker.

Owing to the prevalence of smallpox in Utica and surrounding territory, a general vaccination of patients was performed in December. Subsequently the institution was quarantined from January 24 to March 8. During this time no visiting was permitted except in cases of illness or other urgent necessity.

During the extreme cold weather in December a standpipe burst in the attic of the Nurses' Home, and before the valve could be closed many of the rooms were deluged. Comparatively little damage but much inconvenience resulted.

The ovens in the hospital bakery have undergone extensive repairs. These ovens have been in continuous use for a long period of time, one for 25, the other for 35 years.

There are many vacancies in the ranks of employees, especially the male attendants.

—*Willard State Hospital, Willard.*—The revised capacity of the hospital on the basis of 50 square feet per bed in the dormitories and one bed to each single room is 1016 men and 1098 women, total 2114.

A contract was awarded by the State Hospital Commission March 22, 1918, to Gerstner & Statt, Rochester, N. Y., in the amount of \$4400 for tile floors for the dining rooms at Sunnycroft.

Bids were advertised for the construction of a new boat house, for which there is an appropriation of \$3000, but no offers were received. This work will now have to be done by the hospital and arrangements are being made for the purchase of material.

Thirty men and 30 women patients were received by transfer from the Utica State Hospital, December 19. Fifty men and 40 women patients were received from the Rochester State Hospital by transfer February 13.

The Willard Committee on Mental Hygiene and After Care held its semiannual meeting at the hospital October 3, when reports of paroled patients were received from different members present.

Miss Rachel Ford, who has been in the hospital service about 20 years, and for the past nine years as supervisor of the women's acute service in the main building, has been appointed After Care Agent from an eligible list of names certified by the Civil Service Commission. Miss Ford's name appeared second on the list.

Dr. George H. Kirby, Director of the Psychiatric Institute, Dr. Charles B. Dunlap, Chief Associate in Neuropathology at the Psychiatric Institute, and Dr. Horatio M. Pollock, Chief Statistician, State Hospital Commission, visited the hospital February 15 to 18, and held several conferences with the medical staff in reference to the medical work and statistical data.

Ten employees of the hospital are now in the service of the United States Army or Navy, as follows: Thomas J. Horigan, Lorenzo W. Swarthout, Arthur G. Tillinghast, George A. Cook, Joseph Gallagher, Herbert P. Dean, Walter S. Frost, William H. Chapman, Thomas J. Hanlon, and John L. Tharp.

Dr. Homer I. Rexford, who has been Medical Intern since June, 1916, is at the head of the civil service list for appointment as assistant physician. Dr. Rexford has applied for a commission in the Army Medical Service; he has already been examined and will probably be called in the near future.

—*Craig Colony for Epileptics, Sonyea.*—The cold storage plant, with ice making equipment has been completed and is now in use. The building has a capacity to care for supplies required for an inmate population of 2000.

Alterations to the Colony water supply system are still in progress.

Two new one-story brick dormitories, with a minimum capacity of 60 each, have been completed but cannot be used for the present owing to lack of funds for erecting a kitchen building adjoining these cottages, and also no money being available for furnishing the structures.

Fifteen officers and employees at the Colony are at present in the United States Army service. One physician, a captain of the Medical Reserve Corps, is awaiting orders for active duty and another member of the medical staff has been granted a temporary leave of absence for service of contract surgeon.

A company of the New York State Guard was organized at the Colony in October last, membership being largely made up of officers and employees at the Colony.

NORTH CAROLINA.—*State Hospital, Dix Hill, Raleigh.*—The handicap by the lack of sufficient help, both among employees and on the staff, is a condition at the present time common to all institutions, and necessarily interferes to a great extent with normal activities.

A psychopathic clinic has been established in an attempt to further the progress of mental hygiene and preventative treatment; its inauguration was heralded in the local daily press for the purpose of bringing it more forcibly before the public. Their responses, though not great, have nevertheless been encouraging and indicate to a limited extent its future possibilities.

Owing to the vast amount of ignorance on the part of the public in all matters relating to state hospitals and mental diseases it is proposed to prepare a series of articles dealing with the subject. Much good could be accomplished in the furtherance of this work if the people had a better understanding of objects and aims.

The campaign of enlightenment will be carried to every part of the state and no opportunity will be missed to acquaint the lay public of the facts about their hospitals.

It is intended to gather in groups a number of patients properly selected and give them talks of how to make proper mental adjustments, encourage and advise them.

Always having been ardent advocates of occupational therapy, more enthusiasm is shown every day, especially for the outdoor work on the farm. The benefits of this farm work are unquestionable, as results have shown. Crops last year amounted to \$63,000. This year it is expected to increase this amount by a third and in this way reduce the maintenance cost of the institution.

The remodeling of the heating plant will reduce the present cost at least 30 per cent.

PENNSYLVANIA.—*State Lunatic Hospital, Harrisburg.*—Appropriations to the sum of \$21,000 were made by the legislature during the year 1917. Of this amount \$1000 is to be expended in equipping the industrial building for women, \$20,000 in erecting a cow barn and piggery.

It is proposed to install a telephone system throughout the hospital, to equip the wards with fire extinguishers and hose, to extend the water mains and to establish electric connection with the city fire department of Harrisburg.

Plans are on foot to replace male attendants with female nurses upon the wards for physically ill and feeble men, to establish a training school for nurses and to provide a consulting staff composed of Harrisburg physicians.

—*Pennsylvania Hospital, Department for Mental and Nervous Diseases, Philadelphia.*—The Pennsylvania Hospital for the Insane, at West Philadelphia, has been by recent action of the Board of Managers renamed *Pennsylvania Hospital, Department for Mental and Nervous Diseases*, in correlation with the Department for Sick and Injured, at Eighth and Spruce Streets.

The hospital occupies a tract of 105 acres in the heart of West Philadelphia, along the north side of Market Street between Forty-Second and Forty-Ninth Streets. Obstruction to traffic was relieved some years ago by cutting Forty-Sixth Street through the center of the property with the consent of the managers. There has long been a desire on the part of the city government, and much public discussion, fomented by real estate and business interests, from time to time, relative to cutting through other streets against the will of the managers, but there has been the restraint of an old contract, made by the city and confirmed by an act of the state legislature in consideration of a gift of certain land necessary to the widening of streets, whose terms prohibit such procedure. Recently, however, the city councils have duly authorized the extension of Forty-Fourth Street to Forty-Third Street on the opposite side of the property. The managers appealed to the state courts, and finally on a constitutional question to the United States Supreme Court, although there was expectation of an adverse decision. A sense of obligation to their trust seemed to

require them to seek a conclusive and final determination of the issue. The federal court has now confirmed the decision of the state courts in favor of the city, whose power to open streets or to take the property for public purposes is established, but damages must be paid not only for taking the estate but also for violation of the contract. The proposed street will not be a serious interference with the purposes of the hospital, but the ultimate effect of the decision may be far-reaching. It is possible that the Department for Men may be developed, in its present location, for acute conditions, and for other purposes an extension made on the beautiful estate of 600 acres, which the hospital has owned many years at Ashley, some 12 miles distant in Delaware County.

Seven men and six women were graduated this year from the Schools of Nursing. The women's course covers three years and requires 15 months training in affiliated general hospitals meeting all the requirements for state registration of professional nurses.

CANADA.—An arrangement has been made under which the provincial hospitals will care for the insane soldiers. The dominion government will pay a certain sum per day for each soldier treated. About 325 insane soldiers have been returned and a similar number is said to be still in England. It will be necessary to provide additional accommodations in a number of the hospitals.

Appointments, Resignations, Etc.

- ALFORD, DR. LELAND B., appointed Pathologist at Boston State Hospital at Dorchester Centre, Mass.
- ATWOOD, DR. LEGRAND, formerly Superintendent of St. Louis Insane Hospital and of State Hospital No. 1 at Fulton, Missouri, died August 2, 1917.
- BEELEK, DR. JAMES MOSS, appointed Medical Intern at Connecticut State Hospital at Middletown, October 24, 1917.
- BELL, DR. R. G., appointed Medical Intern at Binghamton State Hospital at Binghamton, N. Y., November 16, 1917.
- BIDDLE, DR. THOMAS COKE, Superintendent of Topeka State Hospital at Topeka, Kansas, for 19 years, died February 16, 1918, from pneumonia, aged 60.
- BINGHAM, DR. HARRY VARLEY, formerly Assistant Physician at Middletown State Homeopathic Hospital at Middletown, N. Y., died February 24, 1918, aged 41.
- BLANCHARD, DR. EDWARD SHERBURNE, Superintendent of Falconwood Hospital for the Insane at Charlottetown, P. E. I., died August, 1917.
- BOCHROCH, DR. MAX H., appointed Visiting Physician to Psychopathic Ward of the Philadelphia General Hospital at Philadelphia, Pa.
- BRADY, DR. THOMAS A., appointed Medical Intern at Central Islip State Hospital at Central Islip, N. Y., February 27, 1918.
- BULLOCK, DR. EUGENE H., Superintendent of State Hospital No. 2 at St. Joseph, Missouri, resigned and appointed Land Reclamation Commissioner.
- BURDICK, DR. C. H., Senior Assistant Physician at City Sanitarium at St. Louis, Mo., appointed Lieutenant in Medical Reserve Corps.
- BURDSALL, DR. E. S., appointed Assistant Physician at Southern California State Hospital at Patton.
- BURFORD, DR. JAMES A., appointed Assistant Physician at State Institution for Feeble-minded at Beatrice, Nebraska.
- BURGESS, DR. A. R., appointed Assistant Physician at Hospital for Epileptics at Parsons, Kansas.
- CARLETON, DR. CHARLES GREENLEAF, Consulting Physician to Danvers State Hospital at Hathorne, Mass., died December 17, 1917, from heart disease, aged 74.
- CARLISLE, DR. CHESTER L., Senior Assistant Physician at Kings Park State Hospital at Kings Park, N. Y., appointed Superintendent of the Division of Mental Defects and Delinquency of the State Board of Charities at Albany, N. Y.
- CHAPIN, DR. JOHN BASSETT, formerly Superintendent of Pennsylvania Hospital for the Insane at Philadelphia, Pa., died at his home in Canandaigua, N. Y., January 17, 1918, aged 88.
- CLEAVES, DR. MARGARET ABIGAIL, formerly Assistant Physician at State Hospital for the Insane at Harrisburg, Pa., died November 14, 1917, aged 69.
- CORRUS, DR. H. L., appointed Assistant Physician at Pennsylvania State Lunatic Hospital at Harrisburg, March 18, 1918.
- CROTHERS, DR. THOMAS DAVISON, Superintendent of Walnut Lodge Hospital at Hartford, Conn., and Editor of the American Journal of Inebriety, died January 12, 1918, from arteriosclerosis, aged 75.
- CURTISS, DR. BARBARA, Woman Physician at Hudson River State Hospital at Poughkeepsie, N. Y., transferred to Central Islip State Hospital at Central Islip, N. Y., December 1, 1917.
- DAMON, DR. LEGRANDE A., appointed Assistant Physician at Craig Colony at Sonyea, N. Y., February 1, 1918.
- DAWSON, DR. WILLIAM JOSEPH GREMLEY, Superintendent of California Home for Feeble-minded Children at Eldridge, died March 4, 1918, aged 72.
- ELLIS, DR. CLIFFORD C., appointed Assistant Managing Officer of Watertown State Hospital at Watertown, Ill.

- ELWOOD, DR. HENRY E., JR., Medical Interne at Willard State Hospital at Willard, N. Y., appointed Director of the Steuben County Laboratory, at Corning, N. Y., January 13, 1918.
- ENGZELIUS, DR. A. E., appointed Assistant Physician at Craig Colony at Sonyea, N. Y., April 2, 1918.
- FARMAN, DR. FRANK L., Assistant Physician at Toledo State Hospital at Toledo, Ohio, appointed Assistant Superintendent.
- FISCHBEIN, DR. E., Assistant Physician at Craig Colony at Sonyea, N. Y., appointed First Lieutenant in the Medical Reserve Corps February 1, 1918.
- FOLEY, DR. EDWARD A., Assistant Managing Officer at Watertown State Hospital at Watertown, Ill., transferred to Chicago State Hospital at Dunning.
- FULMER, DR. J. C., Assistant Physician at Pennsylvania State Lunatic Hospital at Harrisburg, resigned November 17, 1917, because of ill health.
- GREEN, DR. EDWARD M., Clinical Director at Georgia State Sanitarium at Milledgeville, appointed Superintendent of State Hospital for the Insane at Harrisburg, Pa.
- HARMON, DR. FRANK W., Superintendent of Longview Hospital for 37 years, has been granted an indefinite leave of absence with full pay on account of ill health, and has gone to California.
- HARRIS, DR. GEORGE FRANCIS, formerly Assistant Physician at Buffalo State Hospital at Buffalo, N. Y., died at his home in Buffalo, March 18, 1918, aged 44.
- HATTIE, DR. WILLIAM H., Superintendent of Nova Scotia Hospital for the Insane at Halifax, elected President of the Canadian Public Health Association.
- HAUSMAN, DR. SAMUEL W., Medical Interne at St. Lawrence State Hospital at Ogdensburg, N. Y., promoted to Assistant Physician, January 1, 1918, and is now First Lieutenant in the Medical Reserve Corps on active duty.
- HAWLEY, DR. MAX C., appointed Superintendent of Watertown State Hospital at Watertown, Ill.
- HAYES, DR. NOAH, appointed Assistant Physician at Nebraska State Hospital at Ingle-side, Nebraska.
- HERRING, DR. ARTHUR P., Secretary to Maryland State Lunacy Commission, commissioned Captain in U. S. Medical Reserve Corps, and stationed at U. S. A. General Hospital No. 2, at Fort McHenry, Baltimore, where he is in charge of the psychiatric work.
- HOCH, DR. AUGUST, Director of Psychiatric Institute at Wards Island, N. Y., and Professor of Psychiatry at Cornell Medical College, resigned and has moved to California.
- HOFF, DR., appointed Assistant Physician at Chicago State Hospital at Dunning, Ill.
- HORSMAN, DR. HIRAM L., appointed Acting Superintendent of Grafton State Hospital at Worcester, Mass.
- HOWELL, DR., appointed Assistant Physician at Chicago State Hospital at Dunning, Ill.
- HUBBARD, DR. O. S., Assistant Superintendent of Hospital for Epileptics at Parsons, Kansas, promoted to Superintendent, April 1, 1918.
- HUTCHINGS, MAJOR R. H., M. R. C., formerly Superintendent of St. Lawrence State Hospital at Ogdensburg, N. Y., has been appointed on the Surgeon-General's staff at Washington, D. C.
- JACKSON, DR. ROSCOE N., appointed Superintendent of Idaho Insane Asylum at Blackfoot.
- JELLIFFE, DR. SMITH ELY, married to Miss Bee Dobson of New York City, December 3, 1917.
- JOHNSON, DR. SAMUEL A., Superintendent of the Johnson Sanitarium at Springfield, Mo., and formerly Assistant Superintendent of State Hospital No. 3, at Nevada, Mo., was attacked with an axe by an epileptic patient in the yard of the hospital, November 24, 1917, sustaining injuries from which he died on the following day, aged 54.
- KACZKOWSKI, DR. JOSEPH C., Assistant Physician at Chicago State Hospital at Dunning, Ill., granted indefinite leave of absence to join the Medical Reserve Corps.
- KERSHAW, DR. R. B., Physician at Alton State Hospital at Alton, Ill., transferred to Chicago State Hospital at Dunning, Ill.

- KIMBROUGH, DR. RALPH M., appointed Medical Interns at Binghamton State Hospital at Binghamton, N. Y., November 6, 1917, and resigned December 21, 1917.
- KIRBY, DR. GEORGE K., appointed Director of Psychiatric Institute at Wards Island, N. Y., also Professor of Psychiatry at Cornell Medical College.
- KNOWLES, DR. GEORGE A., appointed Trustee of State Hospital for the Insane at Norristown, Pa.
- KOFOED, DR., appointed Assistant Physician at Chicago State Hospital at Dunning, Ill.
- LANE, DR. ARTHUR G., Senior Assistant Physician at St. Lawrence State Hospital at Ogdensburg, N. Y., promoted to First Assistant Physician, October 1, 1918.
- LATHROP, DR. WILLIAM HENRY, formerly Physician to the Detroit Retreat for the Insane and Editor of the Detroit Review of Medicine and Pharmacy, died at his home in Lowell, Mass., December 22, 1917, aged 77.
- LAWRENCE, DR. E. R., Assistant Physician at State Institution for Feeble-minded at Beatrice, Nebraska, resigned.
- LEAHY, DR. SYLVESTER R., Resident Alienist in charge of the Psychopathic Ward at Kings County Hospital at Brooklyn, N. Y., for three and a half years, resigned to enter private practice.
- LEHRMAN, DR. PHILLIP R., appointed Medical Interns at St. Lawrence State Hospital at Ogdensburg, N. Y., March 11, 1918.
- LEWALD, DR. JAMES, Assistant Superintendent of City Sanitarium at St. Louis, Mo., appointed Lieutenant in Medical Reserve Corps.
- LIKE, DR. OTIS, Assistant Physician at Chicago State Hospital at Dunning, Ill., granted indefinite leave of absence to join the Medical Reserve Corps.
- LISTON, DR. JOSEPH B., appointed Assistant Physician at Jacksonville State Hospital at Jacksonville, Ill.
- LONDON, DR. LOUIS, Assistant Physician at Central Islip State Hospital at Central Islip, N. Y., resigned January 15, 1918, to enter private practice.
- MCCAFFREY, DR. EDWARD H., appointed Medical Interns at Central Islip State Hospital at Central Islip, N. Y., March 6, 1918.
- MCCARTHY, DR. R. R., Assistant Physician at Chicago State Hospital at Dunning, Ill., appointed Lieutenant in Medical Reserve Corps.
- MCMILL, DR. JOHN F., Assistant Physician at Central Islip State Hospital at Central Islip, N. Y., enlisted in the Medical Reserve Corps, January 31, 1918.
- MAY, DR. JAMES V., formerly Superintendent of Grafton State Hospital at Worcester, Mass., and recently Major, Medical Reserve Corps, at Camp Devens, appointed Superintendent of Boston State Hospital at Dorchester Centre, Mass., December 1, 1917.
- MOSIER, DR. MERLE, Medical Interns at Connecticut State Hospital at Middletown, resigned December 22, 1917, to be interns in a general hospital.
- MUNSON, DR. JAMES J., Pathologist at Craig Colony at Sonyea, N. Y., commissioned Captain in the Medical Reserve Corps.
- MYERS, DR. EMIL, Assistant Physician at Southern California State Hospital at Patton, appointed First Lieutenant in the United States Army.
- NOBLE, DR. ERMY C., appointed Assistant Superintendent at Boston State Hospital at Dorchester Centre, Mass.
- NORMAN, DR. FRANKLIN C., appointed Superintendent of Arizona State Hospital for the Insane at Phoenix.
- NORTH, DR. CHARLES H., Superintendent of Dannemora State Hospital at Dannemora, N. Y., was stabbed with a chisel and almost instantly killed by a trusty, December 12, 1917.
- OLSEN, DR. JOHN, appointed Assistant Physician at Hospital for Epileptics at Parsons, Kansas.
- PARKIN, DR. VICTOR, Assistant Physician at Southern California State Hospital at Patton, appointed First Lieutenant in the United States Navy.
- PARTRIDGE, DR. JASPER C., appointed Assistant Physician at Craig Colony, Sonyea, N. Y., March 20, 1918.
- PERKINS, DR. ANNE, appointed Assistant Physician at Southern California State Hospital at Patton.
- PERLSTEIN, DR. I., reinstated as Physician at Chicago State Hospital at Dunning, Ill.

- PERRY, DR. M. L., Superintendent of Hospitals for Epileptics at Parsons, Kansas, since its foundation, appointed Superintendent of Topeka State Hospital at Topeka, Kansas.
- PHILLIPS, DR. WARREN M., Assistant Physician at Norfolk State Hospital at Norfolk, Nebraska, resigned to enter the United States service.
- PIKE, DR. WALTER F., Superintendent of Idaho Insane Asylum at Blackfoot, resigned.
- PILSBURY, DR. L. B., First Assistant Physician at Nebraska Hospital for the Insane at Lincoln, promoted to Superintendent January 1, 1918.
- POND, DR. SAMUEL B., appointed Assistant Physician at Southern California State Hospital at Patton.
- PORTER, DR. MARY O'BRIEN, of the staff of the Psychopathic Laboratory of the Municipal Courts of Chicago, died November 18, 1917, from pneumonia, aged 47.
- POTTER, DR. LE ROY C., Assistant Physician at State Mental Hospital at Provo, Utah, resigned to enter private practice.
- PRITCHARD, DR. J. A., Senior Assistant Physician at St. Lawrence State Hospital at Ogdensburg, N. Y., resigned November 1, 1917, to become associated with Glenmary Sanitarium at Owego, N. Y.
- ROSANOFF, DR. A. J., First Assistant Physician at Kings Park State Hospital at Kings Park, N. Y., commissioned Captain in the Medical Reserve Corps and is stationed at Camp Upton.
- ROSS, DR. JOHN R., First Assistant Physician at Dannemora State Hospital at Dannemora, N. Y., appointed Acting Superintendent.
- ROTMAN, DR., appointed Assistant Physician at Chicago State Hospital at Dunning, Ill.
- SAUNDERS, DR. GEORGE L., formerly Assistant Physician at Ohio Hospital for Epileptics at Gallipolis, died October 29, 1917, aged 43.
- SAWYER, DR. GRACE M., formerly an interne at Allentown (Pa.) General Hospital, appointed Medical Interne at Binghamton State Hospital at Binghamton, N. Y.
- SHECKTER, DR. ABRAHAM J., Medical Interne at Kings Park State Hospital at Kings Park, N. Y., resigned March 1, 1918.
- SIDWELL, DR. L. T., First Assistant Physician at Nebraska State Hospital at Hastings, transferred to Nebraska Hospital for the Insane at Lincoln, January 1, 1918.
- SISSON, DR. CHARLES E., Assistant Physician at Norwalk State Hospital at Norwalk, Cal., resigned to enter U. S. Army service.
- SMITH, DR. HIRAM J., Assistant Superintendent of Anna State Hospital at Anna, Ill., appointed Superintendent of Illinois Charitable Eye and Ear Infirmary at Chicago.
- SMITHSON, DR. W. W., Superintendent of State Insane Hospital at Jackson, Miss., resigned.
- SOBEL, DR. NATHAN, appointed Medical Interne at Kings Park State Hospital at Kings Park, N. Y., March 9, 1918.
- SPRINGER, DR. FRANCIS L., formerly Visiting Physician at Delaware State Hospital at Farnhurst, died October 24, 1917, from cerebral hemorrhage, aged 63.
- STECKEL, DR. HARRY A., Assistant Physician at Kings Park State Hospital at Kings Park, N. Y., commissioned First Lieutenant in the Medical Reserve Corps and is on duty in France.
- STOECKLE, DR. CHARLES HENRY, formerly Assistant Physician at State Hospital for the Insane at Warren, Pa., died at his home in Ludlow, Pa., January 31, 1918, aged 50.
- STONE, DR. ROBERT G., appointed Assistant Physician at State Sanitarium at Milledgeville, Georgia.
- STRICKLER, DR. E. J., Assistant Physician at Chicago State Hospital at Dunning, Ill., granted indefinite leave of absence to join the Medical Reserve Corps.
- STRONG, DR. A. E., appointed Assistant Physician at Norwalk State Hospital at Norwalk, Cal.
- SUMMERS, DR. WILLIAM R., Assistant Physician at State Hospital No. 3 at Nevada, Missouri, has purchased the Johnson Sanitarium at Springfield, Missouri.
- SWIERAT, DR. JOHN V., Medical Interne at Kings Park State Hospital at Kings Park, N. Y., commissioned First Lieutenant in the Medical Reserve Corps and placed on waiting orders.
- SWINT, DR. ROGER C., appointed Clinical Director at Georgia State Sanitarium at Milledgeville.

- TADDIKEN, DR. PAUL G., First Assistant Physician at St. Lawrence State Hospital at Ogdensburg, N. Y., appointed Superintendent September 1, 1917.
- THOMPSON, DR. EDMUND BURKE, formerly Assistant Superintendent of Topeka State Hospital at Topeka, Kansas, died at his home in New York City, January 22, 1918, aged 58.
- TIPTON, DR. WILLIAM R., Medical Director of New Mexico Hospital for the Insane at East Las Vegas, promoted to Superintendent.
- VAN BUREN, DR. J. H., Assistant Physician at Craig Colony at Sonyea, N. Y., resigned November 15, 1917.
- VAN WART, DR. ROY, appointed Psychiatrist to Charity Hospital at New Orleans, La.
- WALLS, DR. JOHN R., Superintendent of Arizona State Hospital for the Insane at Phoenix, resigned.
- WEISSMAN, DR. DAVID, appointed Medical Interne at St. Lawrence State Hospital at Ogdensburg, N. Y., November 14, 1917, and resigned December 14, 1917.
- WHITTINGTON, DR. W. L., Assistant Physician at State Hospital No. 2 at St. Joseph, Missouri, appointed Assistant Superintendent of California Home for Feeble-minded at Eldridge.
- WILCOX, DR. FRANKLIN S., First Assistant Physician at Southern California State Hospital at Patton, resigned October 22, 1917, and appointed Superintendent of Norwich State Hospital at Norwich, Conn.
- WILLIAMS, DR. BENJAMIN F., Superintendent of Lincoln State Hospital for the Insane at Lincoln, Nebraska, resigned January 1, 1918, to enter private practice.
- WILLIAMS, DR. PORTER E., appointed Superintendent of State Hospital No. 2 at St. Joseph, Missouri.
- WINNE, DR. WILLIAM R., appointed Medical Interne at Binghamton State Hospital at Binghamton, N. Y., December 1, 1917, and resigned March 31, 1918, to enter military service.
- WINNER, DR. P. S., appointed Assistant Managing Officer at Elgin State Hospital at Elgin, Ill.
- WORK, DR. HUBERT, Superintendent of Woodcroft Hospital at Pueblo, Colorado, has been assigned to duty in the Provost Marshal General's Office in Washington.
- WORTHING, DR. HARRY J., Assistant Physician at St. Lawrence State Hospital at Ogdensburg, N. Y., appointed Captain in the Medical Reserve Corps and is on active duty.
- WRIGHT, DR. L. G., reinstated as Physician at Chicago State Hospital at Dunning, Ill.
- WRIGHT, DR. WILLIAM MOORE, Trustee of Western Tennessee Hospital for the Insane at Bolivar, Tenn., died October 6, 1917.
- YOUNG, DR. NELSON H., Assistant Superintendent of Toledo State Hospital at Toledo, Ohio, appointed Assistant Superintendent of Western Hospital for the Insane at Fort Steilacoom, Washington.

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John B. Chapin, M. D., LL. D., 689.

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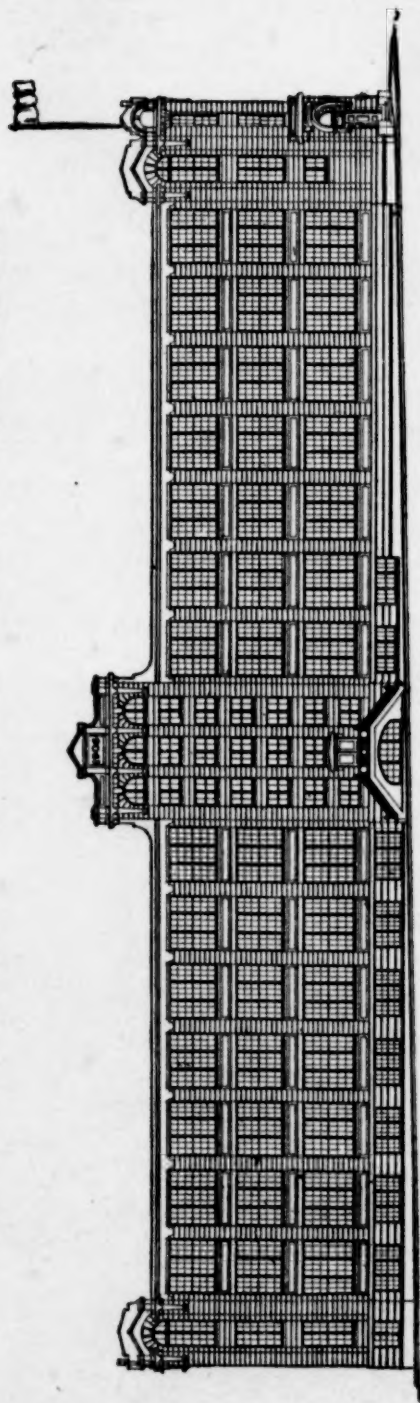
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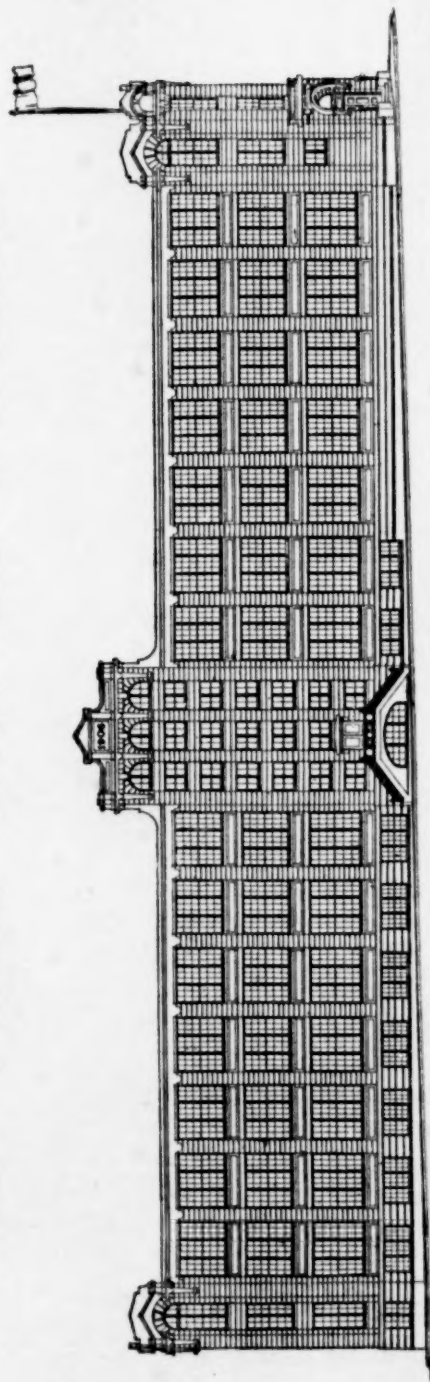
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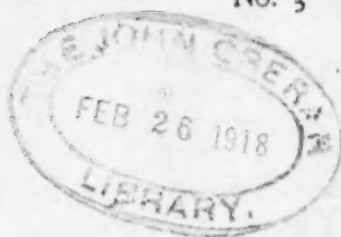
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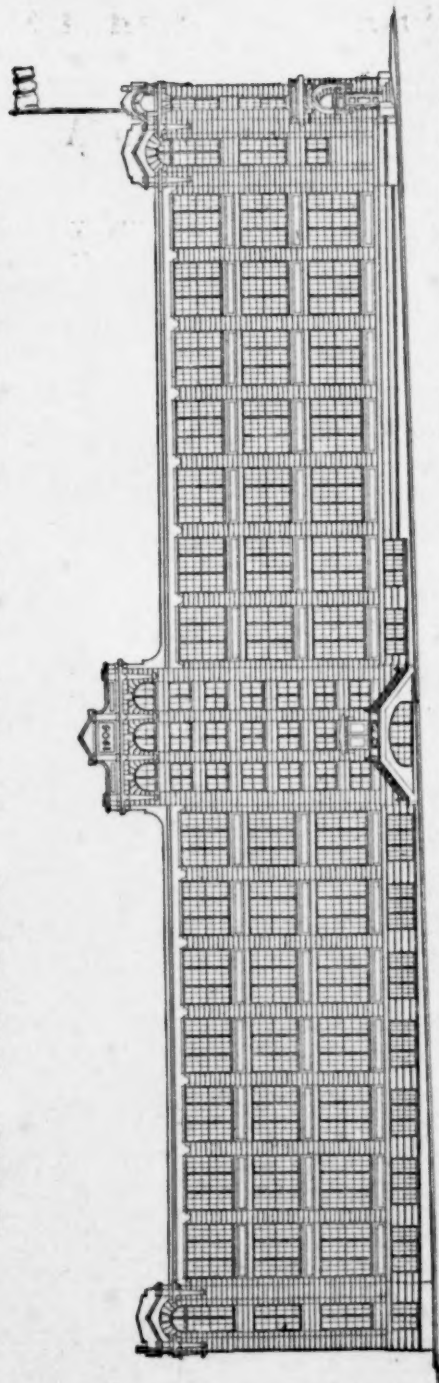
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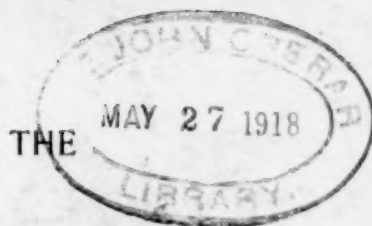
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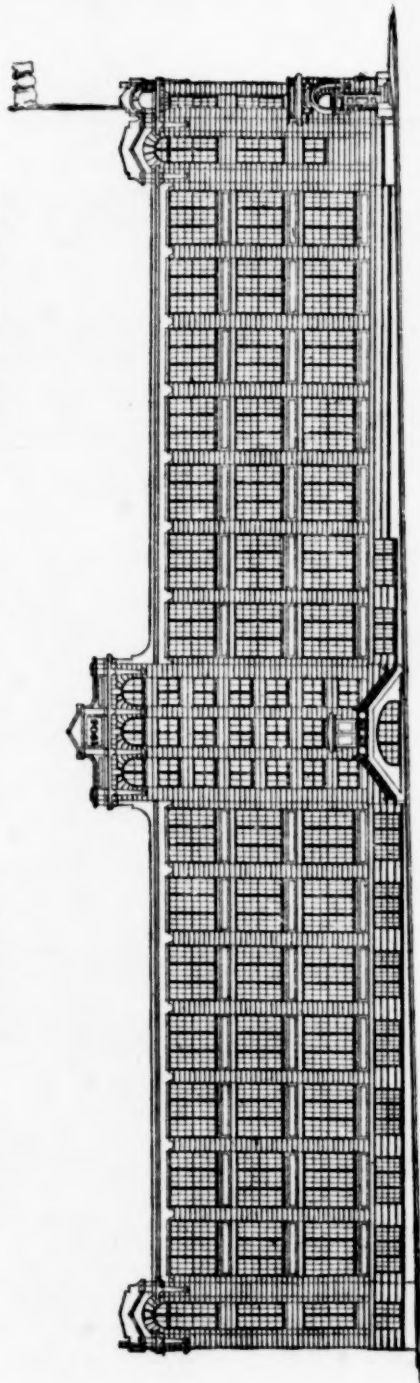
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